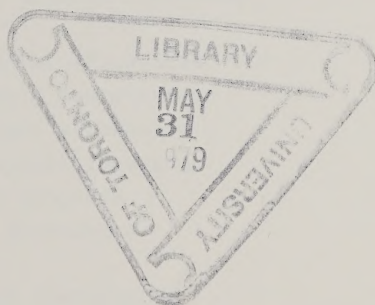


# The Administrative Cost of Income Security Programs: Ontario and Canada

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# Introduction

The administrative cost of income security programs has often been the subject of comment but rarely of empirical investigation.(1) In the absence of information a popular opinion has arisen that much of the budget for income security programs is used to pay bureaucrats rather than recipients. Moreover, it is often thought that the expenditure on bureaucracy compared to the amount paid to recipients has been increasing in recent years. This paper analyses the administrative costs of six income security programs and shows these views to be a myth.

The six programs selected are representative of the range of income security programs available in Canada. On the federal level they include unemployment insurance, the combined old age programs, and the family allowance. The Ontario programs analysed are provincial allowances, municipal allowances, and workmen's compensation. The old age programs include old age security, the guaranteed income supplement, and the spouse's allowance. 'Provincial allowances' include those programs usually identified as provincial welfare, consisting mainly of transfers administered under the Family Benefits Act. 'Municipal allowances' consist of transfers administered under the General Welfare Assistance Act. These programs represent the majority of expenditures on income security programs in Ontario.

The first section of chapter 1 is a discussion of the general methodology and statistics used in the detailed

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- 1 For an example of such comment see Milton Friedman, *Capitalism and Freedom*, Chicago: University of Chicago Press, 1962, 192. Among the few attempts to investigate administrative costs empirically is the US Department of Health, Education, and Welfare, Social and Rehabilitation Service, National Center for Social Statistics, *Expenditures for Public Assistance Payments and For Administrative Costs by Program and Source of Funds: Fiscal Years 1936-1970* (Washington DC: National Center for Social



analysis of programs. The second section describes a number of factors which may have substantial influence on administrative cost. There are at least two different types of measurement available for the 'caseload' of a program: the average number of persons enrolled and the average number of persons enrolling in a given period. This problem of stock and flow is discussed in the third section. The last section of chapter 1 describes the indexing method used to convert current to constant dollars in order to compare administrative costs between years.

The core of the paper is devoted to the individual programs and forms chapter 2. It contains a program-by-program interpretation of data, various program revisions, and other events which may have affected administrative costs. To save time for readers not interested in detail, the third chapter includes a summary of the results of the detailed study, and then reviews some implications of the findings.

All primary data have been placed in the appendix. Collected from a wide variety of sources, they have been presented in a single package since they may be of interest for other purposes than those dealt with here. If this arrangement results in some inconvenience when reading the text, I apologize in advance.

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Statistics, 1971). In Canada, see the Saskatchewan Department of Social Services, 'The Saskatchewan experience with the Family Income Plan and the Saskatchewan Assistance Plan' (unpublished report of the Government of Saskatchewan, 1976). However, both of these reports provide only percentages, which, as we shall see, are of only limited value. In the US study, 'administrative costs' also apparently include some social service expenditures, according to Bell and Bushe (1975).



## Concepts and Issues

### METHODOLOGY

Income security programs and their administrative costs have increased rapidly in the last fifteen years. But what of the cost of administration compared with that of the program? The simplest comparative measure is administrative cost as a percentage of total program cost (transfer payments plus administrative costs). This ratio indicates the relative importance of administration in the budget costs of the program, so that only if it is high could there be significant savings through reducing the cost of administration. This measure lets us know how much of the budget is going to bureaucrats rather than recipients.

However, if we are interested in whether the cost of administration has been increasing in relation to the size of the program, the ratio of administrative cost to total program cost is less appropriate. If the average benefit paid by an income security program were doubled overnight, with no other change in the program, we would expect very little change in administrative cost to result, since it should cost no more to write a cheque for \$200 than for \$100. A change in the ratio may therefore reflect little more than a change in the generosity of the program and tell us very little about administrative cost. Fortunately there are many alternative measures that can serve as indicators for a given year, notably administrative cost compared to the number of cheques issued, the average number of cases receiving benefits from the program at any one time, and the total number of applications processed. Ordinarily a change in any of these factors would affect administrative cost and likely be a better indicator of

whether administrative cost as a proportion of program size has been increasing or decreasing.

In this report caseload is used to measure the size of programs. We thus have two indicators of administration cost in relation to program size, the first being 'administrative cost as a percentage of total costs', and the second 'administrative cost per case'. As mentioned above, there are many different ways to represent caseload; this question is discussed further below. Moreover, many factors obviously may affect administrative cost other than caseload, such as the design of the program and the technical efficiency with which it is administered. Changes in other important factors are taken into account in the detailed review of programs. This matter too is discussed further in the next section.

In summary, then, there are two questions to which this report is addressed:

- Have individual income security programs tended towards greater or lesser administrative costs per case over time? As a corollary to this question, are there other program variables with which changes in the size of administration may be associated?

- What is the percentage of administrative cost to total costs in various income security programs? Are these ratios large enough to allow any significant savings in the over-all bill through reduction of administrative cost?

To answer these questions, two series are derived for each program from the data in the appendix, one showing administrative cost as a percentage of total cost for each year, the other specifying administrative cost per case by year. The basic problem of descriptive statistics is to find some way to summarize accurately these series. One method is simply to take the average of the series: for example, the average administrative cost per case in provincial allowances from 1960-1 through 1972-3 was \$119.28 in constant 1976-7 dollars. However, the average does not tell us whether costs were increasing or decreasing in that time, nor does it describe the amount of variation from the average which occurred: for example, provincial allowance cost per case was \$90.35 in

1965-6 and \$153.54 in 1970-1. A statistical measure is needed to show the increase or decrease of the series, and also some means of judging how well that measure summarizes the series. For the former, the 'line of best fit' is used here. To decide whether that line provides a good description of the data, we use the 'coefficient of variation'.

The line of best fit is found in a way that has become standard in a very large number of statistical uses; it is the straight line which minimizes the sum of the squares of the differences of the actual figures for the series from those through which the line passes. Thus, for example, if in some program the administrative cost per case in four successive years was \$102, \$110, \$123, \$129, and a straight line was drawn to pass successively through points  $P_1$ ,  $P_2$ ,  $P_3$ , and  $P_4$ , the line of best fit would be such that  $(P_1-102)^2 + (P_2-110)^2 + (P_3-123)^2 + (P_4-129)^2$  was as small as possible. This total is known as the 'sum of the squares'. The square root of the sum of the squares divided by the number of observations minus two is known as the 'standard error of estimate', which may be thought of as a kind of average distance from the best-fitting line. In this example, the best-fitting line would pass through \$101.90, \$111.30, \$120.70, and \$130.10. Unlike the average, the best-fitting line has a 'slope', that is, it may increase or decrease. In this example the best-fitting line increased by \$9.40 a year.

The slope of the best-fitting line, however, may be merely the result of chance variation in the sequence of numbers rather than any real tendency to increase or decrease over time. For example, almost any short sequence of randomly selected numbers will have a slope merely because the numbers may be unequal. The student's T-value may be used to test the probability of a slope having resulted from chance variation. This report chooses a 5 per cent level of probability for rejection of the 'null' hypothesis that there is only chance variation in a sequence. This means that the sequence must be such that it has only a 5 per cent probability or less, given the null hypothesis. If, using the student's T-value, we find

the slope of the series has a probability greater than 5 per cent assuming the null hypothesis is true, then we regard the slope as not statistically significant. It is regarded as statistically significant where the probability is less than 5 per cent. A statistically insignificant slope implies acceptance of the null hypothesis that a series has no tendency to decrease or increase over time; a statistically significant slope implies acceptance of the slope as the tendency for the series to decrease or increase over time. To the extent that the best-fitting line is a good estimate of the actual series, we may then draw conclusions from it about the slope of the series.

Whether the best-fitting line is a good estimate of the series seems to depend upon how close the points on the line are to the actual figures. If the points on the line are far from the actual figures, then the standard error of estimate will be large. If the observed data fell exactly on a straight line, the standard error of estimate would be zero, and the best-fitting line would be identical to the data, that is, the best description possible. But the standard error of estimate does not depend upon whether the data are large or small: for example, the series \$2, \$10, \$23, \$29 has exactly the same standard error of estimate as the data in the above example, \$102, \$110, \$123, \$129. While the standard error of estimate may be small compared to the larger amounts of one series, it is large compared to the smaller amounts of the other series. The second point of the best-fitting line for both series will be \$1.30 more than the second figure in both series, and while \$1.30 is a small variation from \$110, it is a large variation from \$10. Thus the standard error of estimate must be compared with the amounts of the series in order to tell us whether the best-fitting line is a good description.

This report normalizes for differences in amounts of various series by dividing the standard error of estimate by the average, or mean, of the series. This ratio is called the 'coefficient of variation', and it is usually expressed as a percentage. In other words a coefficient of variation of 30

per cent means the standard error of estimate is 30 per cent of the mean. The coefficient of variation of the above series with larger amounts is 1.7 per cent, while for the series with smaller amounts it is 12.6 per cent. An arbitrary decision must still be made as to when the coefficient of variation is small enough to justify regarding the straight line as an acceptable approximation of the series and when it is so large that we must reject the line as unacceptable. In this paper a guideline of 10 per cent has been chosen as the maximum coefficient of variation for a best-fitting line to be a reasonably accurate summary. If it is greater than 10 per cent, the best-fitting line is regarded as too different from the actual series for conclusions about the series to be derived from it.(1)

Much of the evidence cannot be described by a single straight line, because the coefficient of variation will probably exceed 10 per cent. (For an example of such a series see column 5, Table 5). While this may at first seem an obstacle to analysis, in fact it is quite the opposite. Where a single line cannot be accepted, we attempt to utilize knowledge of the history of the program to divide the series into two or more periods, each of which may be summarized by an acceptable linear trend line. This allows us to relate actual changes in a program to changes in lines and thereby to assess the effects of program change. There are other ways to approach this problem, such as trying non-linear curves. These, however, are difficult to interpret in the present context and possibly more complex than necessary. The analysis could also be extended by the use of dummy variables for program change. While this would not result in lines differing from those derived through

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1 Persons familiar with trend-line analysis should note that the statistical procedures used here are for descriptive rather than predictive purposes. The coefficient of variation is simply a normalized (scale-free) measure of the extent to which a line is a good description of the observed data to which it is fit. The selection of a guideline value for the coefficient of variation must be a normative judgement because whether or not a line is a 'good' description is essentially a normative decision.



segmenting the series, it would contribute to an analysis of the statistical significance of program change. We have not undertaken such analysis in this study, since in most cases the effects of program change are either obviously statistically significant or clearly dependent on non-quantitative interpretation. Nonetheless, I hope that the richness of interpretation which results will provide ample justification for the use of fitted lines on segments of the series. Of course there is no guarantee that lines with a coefficient of variation of less than 10 per cent can be found in any series-segment of more than three years or that a change in lines can be related to a program change. But in general we find most of the series to be linear enough, and the historical circumstances clear enough, that this problem does not occur.

Once lines have been found that, according to their coefficients of variation, are acceptable summaries of the observations, three questions arise:

- Can we account for the deviations from the lines (although small)?
- Does the program change between segments explain the change in lines (where two or more lines are required)?
- Can we account for the slopes of the lines themselves?

To answer these questions we now look more deeply into the determination of administrative costs, describing in greater detail the variables which influence them.

#### DETERMINANTS OF ADMINISTRATIVE COST

What determines the administrative cost of an income security program in a given year? Obviously many factors do, such as the number of persons enrolled and the complexity of the program. In this section we examine six variables that appear to play a dominant role. As with the development of any theory, the derivation of these variables is largely intuitive. Unfortunately, because we cannot quantify some of these



variables we have not been able to proceed to the next step of empirically testing the intuitively derived theory. Nevertheless, the description of a set of variables which appear to affect administrative cost plays an important part in the following chapters.

Most apparent among these factors is the caseload the program handles. As mentioned earlier, caseload can be described in terms of either stock or flow, as either the average number of persons enrolled or the average number of new enrollees in a given period. A program with an average monthly enrolment of 100,000 cases and a small turnover, say 5,000, may be less demanding administratively than a smaller program of, say, 50,000 cases where on average one-half of the cases leave the program every month and many new cases enroll. No record of stock will provide an accurate picture of flow. Thus there must be two caseload factors which affect administrative cost, 'caseload stock' and 'caseload flow'. This creates some problems in measuring costs per case and is discussed further in the next section.

These two are not the only caseload-related variables. Aside from flow and stock, the nature of the caseload itself may change. In very few, if any, income security programs are all cases alike in their administrative demands. For example, in provincial allowances under the Family Benefits Act a mother of two small children is likely to require more effort than a single, permanently disabled recipient. We may describe the former as a more 'complex' case. If the complexity of the caseload of an income security program changes, there would no doubt be a corresponding change in the administrative requirements of the program. Thus, a third factor may be called 'caseload complexity'.

An important determinant of administrative requirements has to do with the design of the program and may be described to a large extent in terms of the selectivity of the program. How many factors have to be taken into account in order to establish entitlement and the amount of entitlement, and how difficult are these factors to ascertain to some degree of

certainty (the degree of certainty required also being an aspect of program design)? We may picture selectivity as a matrix of all possible factors which might be taken into account measured against a scale of 'degrees of difficulty' dependent upon the degrees of certainty to which this factor is ascertained. If we simply record certainty as 'high', 'medium', or 'low', a matrix might appear as in the accompanying diagram. For example, in the old age security program only the age of the applicant and residence have to be established for payments to be made. If the administration of the program requires a high degree of certainty about residence and a medium degree of certainty about age, then total selectivity is 6+3. If only a low degree of certainty were required for both factors, total selectivity would be 2+1.

A selectivity matrix adequate for the income security programs discussed here would have factors listed in much finer detail, and some objective method would have to be found for assigning degrees of difficulty to levels of certainty. Conceivably, hundreds of such factors might have to be listed. The factors would then have to be weighted further according to the number of times per year they have to be ascertained for a given program, given the program's rules of operation in that year. If such a matrix were successfully constructed, the selectivity variable would adequately capture most elements of program design insofar as they affect administrative cost. For example, if one hundred additional 'fraud' officers were hired, this would be measured as a movement towards higher levels of certainty for various factors and result in a corresponding shift in the selectivity variable.

The selectivity variable, however, does not capture all elements of program design important to administration. Frequency and delivery of payment seem the most crucial of missing variables. For example, a program may make payments weekly, biweekly, monthly, or yearly. The payments may be mailed, or recipients may be required to appear in person to receive payment. The program may issue cheques or cash vouchers requiring a reimbursement system. No doubt other

# SELECTIVITY MATRIX

Factors	Degree of Difficulty										
	1	2	3	4	5	6	7	8	9	10	11 ...
Sex of applicant	H										
Age of applicant	L		M		H						
Structure of family			L			M			H		
Income (past year)						L				M	
Income (present year)							L				M
Income (present month)							L				M
Liquid assets								L			
Other assets								L			
Employment potential											L
Prior employment									L		
Resident		L		M		H					
...											

NOTE: H, M, and L are high, medium, and low degrees of certainty respectively.

aspects of program design besides payment procedure are not captured by selectivity and also affect administrative cost. For the purpose of this paper, though, we shall find that selectivity captures the most important elements of program design. Thus, we may simply describe these other program design factors as an 'other design' variable.

Finally, the administrative cost of an income security program will be determined partly by the efficiency with which it is administered. If management is poor, costs may be higher than otherwise. Thus administrative cost may be affected by management's capacity to take advantage of new technology or new production techniques. Similarly, if there is a low level of work effort, more staff will be needed to accomplish a given task, and costs will be increased.

Unfortunately, four of the above variables are not readily quantifiable. Since we cannot at this stage measure complexity, selectivity, 'other design', or administrative efficiency, it is impossible to apply more rigorous analysis in order to isolate the impact each of the variables has had on administrative costs through time. We have therefore adopted the simpler administrative-cost-per-case measure, as outlined above. But the determinants of administrative cost will play a central role in the attempt to answer the three questions raised when lines have been found for a series of costs per case, since changes in the remaining variables may also partially explain deviations from the line, a shift in lines, and the slope of the line itself.

#### CASELOAD STOCK AND FLOW

As mentioned, the possibility of measuring the caseload as either stock or flow raises some difficulty for calculating the administrative cost per case, namely, which should be used? For those less familiar with the distinction between stock and flow a simple model may be helpful. In Table 1 for simplicity we have assumed that persons are allowed to enrol or drop out

TABLE 1: Model of caseload stock and flow

Month	<u>Stock</u>		<u>Flow-in</u>	<u>Flow-out</u>	<u>Claimants</u>
	Number enrolled for the month (000)	(000)	New enrollees at end of month (000)	Dropouts at end of month (000)	Number of persons receiving payments in this year + (000)
Jan.	15*		6	4	21
Feb.	17		4	5	4
March	16		5	4	5
April	17		6	3	6
May	20		8	4	8
June	24		7	5	7
July	26		4	5	4
Aug.	25		3	6	3
Sept.	22		3	6	3
Oct.	19		2	5	2
Nov.	16		2	3	2
Dec.	15		2	4	2
Total	232		52	54	67

\* Fifteen persons continued their enrolment from previous year.

+ Assuming none of the new enrollees had previously received a claim in this year.

NOTE: Caseload Stock

Average monthly enrolment  $232/12 = 19,334$  per month

Caseload Flow

Average flow-in per month  $52/12 = 4,334$  per month

Average flow-out per month  $54/12 = 4,500$  per month

Total claimants for that year 67,000

of the program only on the last day of each month. Reporting the cost per average monthly enrolled case (stock) of a program such as that illustrated in Table 1 may be deceptive. If in the next year flow-in and flow-out increase significantly, everything else being equal, an increase in the cost per enrolled case would result. Even in the year illustrated, cost per caseload flow-in or flow-out will be very different from cost per average caseload stock.

The problem of which measure to use in this paper is mainly one of exposition caused by lack of data, since the use of one measure does not by any means disqualify the relevance of the other. Caseload flow and stock remain part of the combined output of an income security program, regardless of which is selected as the best proxy for total output. As will be seen in chapter 2, either stock or flow may still be used to explain change in cost per case. The question is which will provide a more readily analysed and more consistent series of costs per case. The best pragmatic rule to apply is to select the measure most appropriate for the particular program being discussed.

If we know that the caseload flow in a program will generally be small compared to the average enrolment, the cost per enrolled case would appear the best measure. Conversely, where a program will have very little stock compared to the flow, it would be best to report cost per case flow, for example, administrative cost per new claim. Of the six programs with which we are dealing in this paper, two are clearly of the former variety, two clearly of the latter, and two are ambiguous.

Both family allowance and the old age programs have very large continuing average enrolments compared to the number of new cases. For example, if we assumed that there were identical numbers of persons in every age group up to age eighteen, then flow into and out of family allowance would be  $1/18$  of average enrolment. This number may vary over the years, but only in the most extreme of circumstances would it exceed, say, 15 per cent. Essentially, this is the result of the eighteen-year average length of duration of enrolment in the family allowance



program. Similarly, the average duration of enrolment in the old age programs (old age security, guaranteed income supplement) will be about fifteen years. Thus, unless there are substantial and sudden changes in the flow of people into or out of the programs from year to year, the average enrolment will be far larger than flow. Accordingly, we record administrative cost per enrolled case for family allowance and old age programs.

Both unemployment insurance and workmen's compensation are exactly the opposite. Almost all claims are of relatively short duration, with the exclusion of some special-benefit programs of a relatively small size. For example, in 1975, 1974, and 1973 the average duration of enrolment on unemployment insurance was 17.3, 15.9, and 17.6 weeks respectively, (Canada, Unemployment Insurance Commission). Thus there were approximately three claimants for each average enrolled case in these years. We therefore record administrative cost per claim submitted, a measure of caseload flow, for both unemployment insurance and workmen's compensation.

As can be seen in Table A3, for provincial allowances caseload flow is roughly one-third of caseload stock. We shall therefore use the latter as the denominator for administrative costs there. However, the relatively large caseload flow implies that fluctuations of flow may significantly affect administrative costs per case, a difficulty discussed in greater detail in chapter 2. This problem does not arise at all with municipal allowances, for the simple reason that no reliable historical caseload information of any kind is available. We are therefore unable to discuss costs per caseload flow or stock for municipal allowances and shall instead confine our discussion of this program to administrative cost as a percentage of transfers.

#### INDEXING ADMINISTRATIVE COSTS

In order to measure the trend of administrative costs of income security programs, the dollars in which those costs are

reported must be the same from one year to the next. During the decade and a half through which we are measuring costs, inflation has eroded the purchasing power of the dollar. Ideally, in reporting dollar costs of administration, we want the dollars to reflect an equivalent power to purchase 'administrative resources' over time. We therefore need to adjust the nominal dollar cost for any year to constant dollars of a given year, in this case those of the 1976-7 fiscal year, 1 April 1976 to 31 March 1977.

The best index would provide index year prices for each category of goods and services used in the administration of income security programs. As can be seen from the primary data in, for example, Tables A4, A10, and A18, labour accounted for between 70 and 80 per cent of the total costs of administration of income security programs. Thus the accuracy of the index for labour costs is much more critical than that for non-labour costs. A Paasche-type index, reflecting changing patterns of employment for various categories of labour in income security programs, would provide a good estimate of changes in labour costs for the programs discussed here. However, in order to construct such an index we need data on the prices and quantities of the categories of labour involved in income security programs for the whole period under review.

The only breakdown of employment by category within income security programs is that provided within the Statistics Canada Federal Government Employment series, which includes total payroll and number of employees in six categories of employment for the 'social welfare' function of the federal government.(2) To construct an index we have taken the average per-unit cost of labour for each category for the 1976-7 fiscal year as our index year prices. The index for any given prior year is then derived by dividing total payroll for the given year by the sum

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2 The name 'social welfare' function is that used by Statistics Canada and refers to employment within various areas of social policy in the federal government, including social services and income security programs. In order to avoid confusion with the 'welfare function' of welfare economics, I have in the following pages referred to this series as the 'social security' series.

of that year's quantity of labour in each category multiplied by the 1976-7 prices for that category.(3) The resulting index of labour costs for income security programs is presented in column 2 of Table 2 as the 'social security weighted' index. Unfortunately, categories of employment were not recorded prior to 1972-3, so this index is confined to the most recent five years.

A possible alternative to the above social security index would be an index based simply on non-categorized employment data from the same series. The result is presented in column 3 of Table 2 as the 'social security aggregate' index.(4) As might be expected, the aggregate index is quite close to the weighted index for the five years in which the latter is available. Data for the two fiscal years 1968-9 and 1969-70, however, are unavailable. Another alternative is to construct an index of labour costs within the Canadian service sector. This is also an aggregated index without weighting for varying categories of employment. It is presented in column 4 of Table 2. It is even closer to the five years of the weighted social security index than is the aggregate social security index. Since the service sector labour cost index is most complete and since it seems to follow quite closely the aggregate social security index, I have used the service sector index to convert labour costs to constant dollars in this paper.

While it is difficult to estimate the degree of error introduced by this method of indexing, it does not seem unreasonable to assume that wages in the service sector and in

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- 3 We have thus used 1976-7 prices as 'base' year price weights, rather than the more usual practice of using the earliest period as base year. This allows a more accurate reflection of relative prices in more recent years as compared to earlier years.
- 4 The only difference between these two indices is that the categorized index does not treat quantity shifts between categories of labour as a price change, whereas the aggregated index treats any change in the cost of labour as a price change. In general, the finer the breakdown between categories of goods, the more accurate the index.

TABLE 2: Comparative indexes (1976-7 = 100.00)

	Social security weighted	Social security aggregate	Service sector	CPI all items
1960-1		32.30	35.29	49.27
1961-2		34.40	35.59	49.58
1962-3		35.54	36.47	50.32
1963-4		38.45	37.13	51.22
1964-5		39.01	38.49	52.66
1965-6		40.10	40.93	53.63
1966-7		45.25	43.66	55.58
1967-8		47.44	46.72	57.77
1968-9		N/A	49.22	60.03
1969-70		N/A	52.51	62.86
1970-1		59.56	56.35	64.52
1971-2		66.21*	61.59	66.84
1972-3	66.95	66.38	66.98	70.21
1973-4	69.53	68.03	71.01	76.22
1974-5	81.30	80.14	79.86	84.89
1975-6	89.49	88.30	90.67	93.85
1976-7	100.00	100.00	100.00	100.00

\* The social welfare category changes somewhat between 1971-2, and 1972-3. In the latter, 'veteran's benefits' and 'fitness and amateur sports' are included, replaced by a sector of 'manpower' and 'parole and community services' in the former.

NOTE: Social security weighted is a Paasche-type index weighted by the five categories of employment in the federal government 'social welfare function' category, excluding 'casual and others'. Social security aggregate is total employment excluding 'casual and others' in the same 'social welfare' category. The service sector index is based on the 1960 standard industrial classification.

SOURCE: Federal Government Employment, Statistics Canada, catalogue 72-004.

Employment Earnings and Hours, Statistics Canada, catalogue 72-002. CANSIM D1450.

Statistics Canada, CANSIM D616101.

the very similar activities within income security programs have behaved in roughly the same way. The very small absolute mean difference between the total aggregate social security index and the service sector index, 1.61 per cent, supports this supposition. In the last few years, when it has often been argued that public service wages began to exceed their private sector counterparts, the service sector index is almost identical to the weighted social security index, which is the most accurate index possible with existing information. Thus it seems unlikely that the resulting error in estimating administration costs could be more than 3 or 4 per cent plus or minus in any given year. The best evidence on behalf of this method of indexing is the remarkably consistent series which result when indexed administrative costs are measured against non-monetary measurements of caseload in the next chapter.

Accepting this index for labour costs, we now need an index for non-labour costs. Since these constitute only 20 to 30 per cent of total costs, an error in the index for non-labour costs will have relatively little influence on total indexed administrative costs. For simplicity we have therefore used the Consumer Price Index for non-labour costs. While this will be somewhat different than the escalation in cost to government of the purchase of non-labour goods, the resulting error should again be small. The CPI is presented in column 5 of Table 2. Taking the two indices for labour and non-labour costs, we apply them to the labour and non-labour expenditures respectively for each year for each program. The resulting program indices are presented in Tables 3 and 4. Since workmen's compensation data are in calendar years rather than fiscal years, we have adjusted the indices accordingly.

This paper uses indexed administrative costs only for the series of costs per case. For the series of administrative costs as a percentage of total costs, neither administrative costs nor total costs is indexed. Since we have no caseload data for municipal allowances, we have not computed a program index for that program. The decision not to index in the case of the administration/total cost ratio may raise some

TABLE 3: Program indices: 1976-7 = 100.0 (weighted by proportion of labour and non-labour costs)

Fiscal year	Unemployment insurance	Provincial allowances	Family allowances	Old Age programs
1960-1		37.57		
1961-2		37.67		
1962-3		38.44		
1963-4		39.42		
1964-5		40.58		
1965-6	44.80	43.02		
1966-7	47.20	45.56		
1967-8	50.29	48.74		
1968-9	52.91	50.81		
1969-70	55.57	53.82		
1970-1	58.43	57.40		
1971-2	62.95	62.45	62.77	62.77
1972-3	67.70	67.45	67.78	67.78
1973-4	72.16		72.42	72.42
1974-5	81.38		81.17	81.17
1975-6	91.63		91.39	91.39
1976-7			100.00	100.00

SOURCE: Table 2, service sector index applied to labour and labour cost data in appendix for each program.



TABLE 4: Workmen's Compensation Board index 1976-7 = 100.0  
(weighted by proportion of labour and non-labour costs)

Calendar year	Service sector index	CPL index	WCB weighted index
1960	32.46	49.09	35.97
1961	35.37	49.51	38.43
1962	36.24	50.11	39.25
1963	36.93	50.98	39.91
1964	38.14	51.90	41.02
1965	40.21	53.18	43.59
1966	42.92	55.16	45.58
1967	46.08	57.13	48.52
1968	48.52	59.48	51.13
1969	51.47	62.15	53.94
1970	55.43	64.24	57.39
1971	60.27	66.06	61.58
1972	65.63	69.21	66.40
1973	70.04	74.49	70.88
1974	77.12	82.58	78.32
1975	87.86	91.51	88.83
1976	98.14	98.38	98.20

NOTE: Service sector and CPI indices are calendar-year indices based upon the fiscal-year 1976-7 value.

SOURCE: Table 2, service sector and Consumer Price Index applied to labour and non-labour cost data in the appendix for workmen's compensation.

theoretical questions. Since administrative costs have risen more rapidly than consumer prices, not indexing will apparently understate past administrative costs and therefore bias upwards the trend in the series. Clearly, then, a good deal of the change in the ratio of administration to total cost may be due simply to a difference in the rate of inflation between administration and transfers. If our primary interest in this ratio were its rate of change or projection of its future values, non-indexing would obviously be unjustified. But as mentioned above, our primary interest in this series is in measuring the potential for over-all cost saving which could be affected through reduction in administrative cost. For this question it is the absolute value of the ratio rather than its rate of change which is of prime importance. Indexing would distort the absolute values of the ratios with the exception of the base year. As we shall see in the following detailed discussion of programs, almost all the change in the administrative cost/total cost series is in any event attributable to changes in the amount of average benefits.

## Six Income Security Programs

### ONTARIO - PROVINCIAL ALLOWANCES

The term 'provincial allowances' is here used to describe a number of programs administered directly by Ontario. Although they have changed significantly over the past decade and a half, they have remained throughout primarily classical 'welfare' programs, providing last-resort assistance on the basis of a needs test in which payment is calculated according to the difference between a family's resources and a schedule of needs based upon the composition of the family. For the most part, provincial allowances have been confined to the permanently unemployable, such as the disabled, and to single mothers of dependent children. In Ontario, persons who are more readily employable but find themselves in need with no alternative other than welfare have in general received assistance administered directly by municipal governments (municipal allowances are discussed below). The various programs included in this discussion of provincial allowances, together with the amounts paid under each program from 1960-1 through 1972-3, are listed in Table A2.

#### Data considerations

The data available on provincial allowances were limited in a number of ways. First, we have been unable to obtain administrative cost figures beyond the 1972-3 fiscal year, thus confining the time series to thirteen years and excluding the most recent four fiscal years. Since it is in these last years that government has been under intense pressure to restrain spending, these data might have proven quite interesting.

Second, there is no information on the number of employees involved in the administration of provincial allowances. Had such information been available, it would have provided a useful corroboration for data on administrative costs aside from its intrinsic interest.

In the administrative cost figures for 1960-1 to 1972-3 (Table A1) we have included only the total costs of the two branches most directly involved in administration of provincial allowances. We have not attempted to apportion other more general functions, such as the deputy minister's office, part of whose effort no doubt contributes to the provincial allowance programs. The primary reason for not doing so is that there appears to be no objective criterion for the percentages of the various indirect functions that should be added. Secondly, it seems reasonable to assume that the proportions have not changed much over time, so that the series will in any event adequately reflect changes in the cost of administration. However, this implies that as a measure of 'absolute' cost, as opposed to change in cost, there is a small consistent downward bias in our figures.

To some extent this downward bias is ameliorated by bias in the opposite direction in the case of the Field Services Branch, which is primarily the system of regional offices through which clients are tested, interviewed, and so on. Some part of Field Services' activity is unrelated or only peripherally related to the administration of provincial allowances. In particular, the Northern Regional Offices of Field Services are heavily involved in the administration of municipal allowances in the absence of municipal authorities. In addition, Field Services' staff have become increasingly involved in the delivery of social services and similar activities not directly related to provincial allowances. Of course to the extent that the primary responsibility of this branch has remained the delivery of provincial allowances, the marginal cost of the latter functions may be significantly less than the proportion of staff effort expended in their pursuit. Furthermore, the trend towards spending greater time in social services delivery

would appear, from comments of officials, to have become most marked only in recent years, on which data are lacking.

In contrast to the cost of administration, data on case-load and transfers paid have been readily available and appear reliable. Stock and flow figures for all thirteen fiscal years under consideration are presented in Table A3; similarly, labour and non-labour costs, Table A4, appear quite reliable.

#### Administration as a percentage of total costs

As can be seen in the third column of Table 5, administration costs as a percentage of total costs have varied from a high of 7.21 per cent to a low of 3.88. Since Ontario's

TABLE 5: Ontario - provincial allowances

Fiscal year (commencing 1 April)	Administration cost (\$)	Administration costs to total cost(%)	Administration costs indexed to 1976-7 dollars	Indexed administration costs per recipient (\$)
1960-1	1,769,297	6.32	4,709,209	100.32
1961-2	1,955,326	6.64	5,190,811	107.22
1962-3	2,014,829	6.45	5,241,868	104.81
1963-4	2,228,301	7.21	5,652,875	102.57
1964-5	2,351,179	6.77	5,793,280	90.87
1965-6	2,584,067	6.57	6,006,146	90.35
1966-7	3,216,340	6.74	7,060,036	110.60
1967-8	4,369,733	4.20	8,964,894	145.08
1968-9	4,585,390	3.88	9,025,713	142.29
1969-70	4,912,295	4.11	9,127,469	142.83
1970-1	5,897,188	4.60	10,274,550	153.54
1971-2	6,250,397	4.11	10,008,410	131.22
1972-3	7,127,737	4.24	10,567,850	128.93

SOURCE: Tables A1, A2, A3, and A4

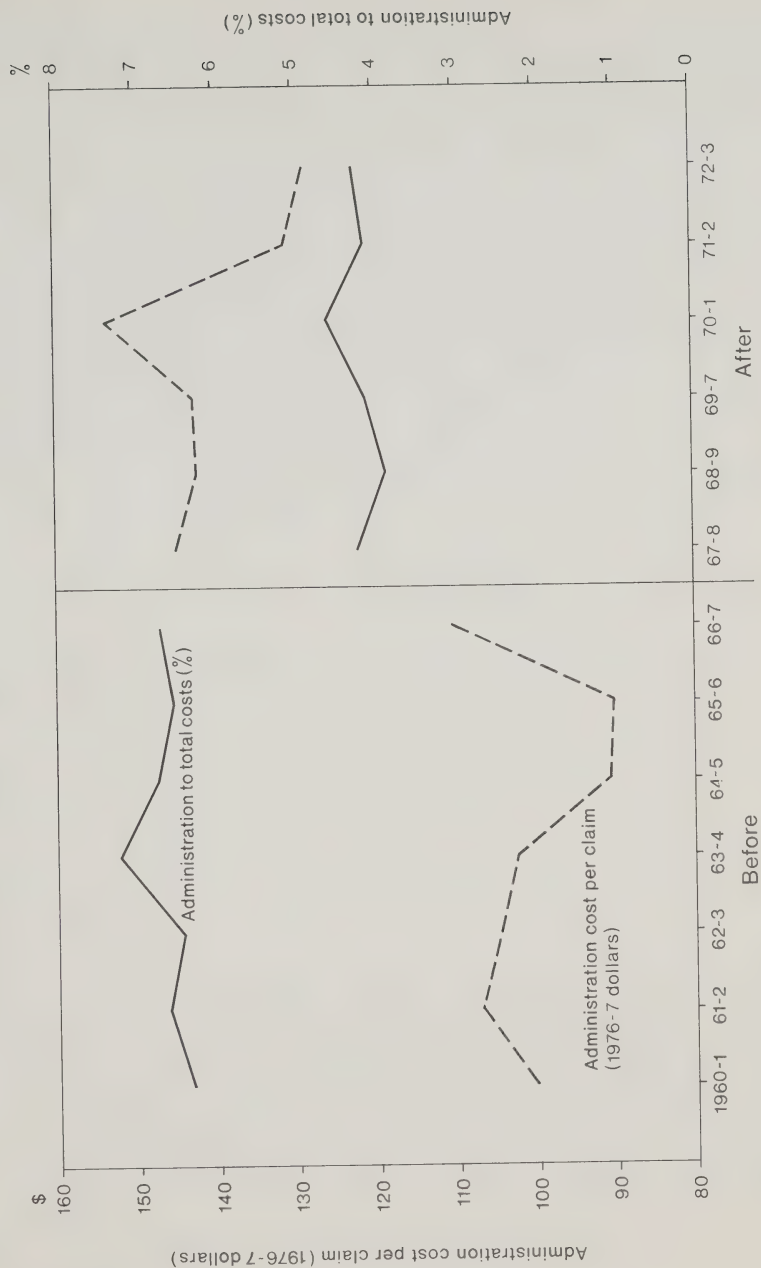
provincial allowances are almost entirely needs-tested programs, this result may be somewhat surprising to those persons who believed that substantial savings might be found through administrative reform of such programs. A 50 per cent reduction in administrative costs would result in saving approximately 2 to 4 per cent of total program costs. In most years these amounts are much smaller than the increases experienced in transfer payments themselves. The inescapable conclusion is that even if such dramatic administrative savings could somehow be achieved without a concurrent increase in fraud, overpayments, and so on the dollar differences would be virtually unnoticeable within the cost of the total program.

Aside from the question of possible cost savings, there is a remarkably clear historical trend in these ratios. The most significant change in the provincial allowances program occurred in the 1967-8 fiscal year with the introduction of the provincial Family Benefits Act, which followed upon the proclamation of the federal Canada Assistance Plan. The CAP allowed for more generous cost-sharing of upgraded and consolidated provincial welfare programs. Accordingly the Ontario government began to phase out its categorized programs, such as the disabled persons allowance and old age assistance, and consolidated all these programs under the new Family Benefits Act. The largest single program then existing, mother's allowance, was immediately subsumed under the new Act, which also provided for much more generous levels of benefit.

As can be seen in Table 5, pre-1967-8 percentages of administrative costs were consistently higher than those after the Family Benefits Act was introduced. This is represented graphically in Figure 1. In fact, if we separate this series into two sets, one before 1967-8 and the other after, the result is two very stable sets of figures. During the seven years before 1967-8, for the ratio of administration costs to total costs the mean of the best-fitting line is 6.67 per cent, with a coefficient of variation of 4.32 per cent. After and including 1967-8, the mean of the best-fitting line is 4.19 per cent, with a coefficient of variation of 5.95 per cent. In



Figure 1: Ontario-provincial allowances



neither case is the slope of the line significant to 95 per cent probability. Thus there is no apparent slope in either line, and except for the break represented by the Family Benefits Act there has been very little deviation in administrative costs as a percentage of total costs.

Given this stability, there is clearly no trend either upwards or downwards in the proportion of costs devoted to administration; rather there appears to be a significant tendency to maintain a particular percentage through time. The one marked deviation from this rule may be attributed simply to the much higher levels of benefits paid under the Family Benefits Act than before. This resulted in one large shift in administrative costs as a percentage of total costs down from 7 per cent to 4.0 per cent, where it has remained approximately since then, or at least until 1972-3 when our data end.

#### Costs per case

In order to compare administrative costs per case through time, we have indexed them to 1976-7 dollars as described earlier. Table 5 shows costs have varied from a high of \$153.54 to a low of \$90.35 per recipient, but these figures must be treated with caution. Caseload data for provincial allowances are presented in Table A3, the second column of which lists the average monthly number of recipients in each fiscal year. In fact the amount stated, for example 46,940 in 1960-1, is the average number of recipients enrolled at any given time during that fiscal year. In other words it represents the average stock of recipients in the fiscal year. The cost per recipient in the fifth column of Table 5 is arrived at by dividing this average stock into total indexed administrative costs. Thus it represents not a cost per person receiving benefits but the approximate cost of administering one year's benefits, which may result from twelve

persons having received benefits for one month each.(1) As is discussed below, the increase in costs per case may be misleading to the extent that they represent the expense of providing services to a greater flow of beneficiaries.

Costs per case were also quite stable before and after the introduction of the Family Benefits Act. The pre-1967-8 mean cost per case was \$100.96, with a coefficient of variation of 8.3 per cent. After and including 1967-8 the mean jumps to \$140.65 with a coefficient of variation of 5.8 per cent. In neither case is the slope statistically significant to the 95 per cent level. Thus, with regard to each of the pre-1967-8 and post 1967-8 segments, there has been no visible trend towards higher or lower costs per case. Between the two segments, however, there was a large increase in costs per case.

This is the one marked difference between administrative cost per case and administrative cost as a percentage of total cost. While in the latter the introduction of the Family Benefits Act brought a fall to a lower mean percentage, in the former the new Act led to a jump upwards in the mean cost per case. This seemingly paradoxical result is explained by the small percentage which administrative costs form of the total. While mean administrative costs per case increased by about 40 per cent, transfers per recipient approximately doubled, while the number of recipients remained roughly the same. Thus in terms of the percentage of total costs, the increase in transfers far outweighed the increase in administrative costs.

Nevertheless, the increase in administrative cost per

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1 A useful analogy might be to the practice of measuring output in 'patient-days' in the field of health. An average stock of 46,940 represents 17,135,100 'benefit-days'. Thus the cost per recipient of \$100.32 could be divided by 365 to arrive at 27.49¢ per benefit-day. If in the field of health the average cost per patient-day decreases with duration of stay, a hospital which reduces its duration of stay but maintains the same number of patient-days will tend to have higher costs per patient-day, a seemingly paradoxical result analogous to the problem discussed here.

recipient remains to be explained. It is easy enough to see that it was because of the new Family Benefits Act, but whether it was due to the inherent demands of the new Act or a case of taking advantage of the general changeover to upgrade the bureaucracy is still unknown. At least four other factors might explain the increase after the introduction of the Family Benefits Act: caseload flow, caseload complexity, increased selectivity, or other changes in program design which might increase the administrative demands placed upon the program. In fact, the annual report for 1967-8 attempts to explain the increase in costs of administration by appeal to the two remaining caseload variables: caseload flow and complexity.

The caseload data show that the flow of cases, represented by the number of applications processed, did increase substantially in 1967-8. In subsequent years, however, applications tapered off to previous levels without a corresponding reduction in costs per case. For example, flow and stock were almost identical in 1964-5 and 1969-70. Despite this, the cost per case in the former fiscal year was \$90.87 and in the latter \$142.83. This is not to say, though, that the cost increase could not have been due partly to the increase in flow if some other variable interacting with caseload flow was significantly lower before 1967-8 than after.

There is some evidence that the 'missing variable' may be caseload complexity. According to the 1967-8 annual report, 'of particular significance to the Branch is the continuing rapid increase in the number of families with dependent children, both in absolute numbers and as a percentage of the whole. In 1965-6, 14,817 families accounted for 21.1 per cent of the total; in 1966-7, 17,199 families for 26.0 per cent; and in 1967-8, 24,794 families for 35.0 per cent'. (Ontario, Ministry of Community and Social Services, *Annual Report*, 23) Assessment of the eligibility and amount of payment for a family is much more complex than for an individual in a needs-tested system, since the needs and resources of every member must be taken into account as well as the relationship between members of the family. Unfortunately, reliable historical data on even

a crude measure of case complexity, such as the percentage of recipients with dependents, is not available, so it is not possible to test the extent to which the three caseload variables taken together might explain the difference in cost. Nevertheless there is good reason to expect that the trend towards greater complexity has continued, if for no other reason than that fewer elderly persons are in receipt of provincial allowances, and that this, coupled with a high rate of flow, at least partly accounts for the different pre- and post-1967-8 mean costs per case.

## Conclusion

Administrative costs both per case and as a percentage of total costs appear quite stable over time, except for the marked effect of the introduction of a new Act governing provincial allowances. Because of the large increase in benefit levels the new Act decreased administrative costs as a percentage of total costs from 7 to 4.2 per cent. Costs per case on the other hand increased because of the new Act from \$101 to \$141. This is explained partly by increased case complexity and possibly a greater flow of such complex cases. Whether the increase was also due partly to the design of the revised program or reduced efficiency cannot be discerned in the data available at this time. One surprising result is the very low level of administrative cost as a percentage of total cost, which has remained below 5 per cent in the last six years for which data are available.

## ONTARIO - WORKMEN'S COMPENSATION

Workmen's compensation provides replacement income for earnings lost due to personal injury sustained in the course of employment, as well as the cost of medical care for the injury. The amount of benefit paid is in general a fixed percentage of the amount of earnings lost and in the case of pensions awarded

for permanent disability is also adjusted for the number of dependent children. Most benefits are paid under Schedule 1, which lists high-risk employers by risk category. Schedule 1 employers pay contributions direct to the Workmen's Compensation Board, which then handles all awards. Other employers, covered under Schedule 2 and other listings, may provide awards directly to workers, although they may also be required to contribute to the Board. Table A7 lists payments made under Schedules 1 and 2 in the seventeen calendar years 1960 through 1976.

#### Data considerations

In comparison with other programs, workmen's compensation has consistently provided excellent data, as reflected in the full seventeen years of information recorded in the appendix. No doubt this is largely due to the fact that Board funds are held in trust for employees, rather than being general taxation revenue, and to the need for employers' contributions to 'cover' expected payments. Unfortunately much of the reporting is oriented towards accounting purposes, so that there are some gaps in data which have had to be filled by estimates.

These gaps are most evident in administrative costs, Table A5, which have traditionally been reported for the operation of the Board as a whole. Some of the activities included in these costs are incurred in the delivery of social services such as vocational counselling rather than in administration of benefits. The second column of Table A5 states administrative costs under Schedule 1 as reported by the Board. These should be quite accurate since few social service costs will be charged back to employers. Administration costs for total benefits are derived by estimates as described in Table A5. Although it appears that either set provides a fairly reliable series of administration costs, we have used both series throughout to maintain a double check. We have not attempted to complete the series on the number of employees of the Board through a similar estimation procedure. While estimates



could be derived by prorating administration costs, the employment figures could not then be used to double-check administrative cost figures and so would serve no useful purpose in this context.

The caseload data in Tables A8 and A9 are for caseload flow. As described in the appendix, these series have been used together to provide estimates which allow the series to be completed. Since claims settled are an almost constant proportion of claims submitted, there is little difference in results using either series for analysis. Claims submitted were used since they appear to be a more accurate reflection of total workload and similar measures were used in other programs, such as applications processed for provincial allowances. While excellent data on caseload flow have thus been obtained, there is very little information on caseload stock. Fortunately, workmen's compensation consists mainly of short-term aid to temporarily disabled employees, so that caseload flow is the most appropriate measure to be weighed against administrative costs.

#### Administration as a percentage of total costs

As can be seen in Tables 6 and 7, for the last seventeen years the administrative cost of workmen's compensation has remained consistently below 10 per cent of total costs. Since eligibility for compensation must usually be confirmed by medical reports and each case separately judged, this result may be somewhat lower than expected. There has been some moderate variation in the percentage during the seventeen years discussed here; the mean percentages and coefficients of variation are as follows: Schedule 1, mean 7.88 per cent, coefficient of variation, 9.6 per cent; Total, mean 8.04 per cent, coefficient of variation 10.6 per cent.

As shown in Figure 2, these seventeen years may be interpreted as three distinct periods. From 1960 through 1965 percentage costs were declining slightly; from 1966 through 1974 costs remained stable; and in the last two years costs have apparently increased again.

TABLE 6: Ontario - workmen's compensation

Calendar year	Adminis- tration cost (\$)	Adminis- tration costs to total cost (%)	Administra- tion costs indexed to 1976-7 dollars (\$)	Indexed adminis- tration costs per claim sub- mitted (\$)
1960	5,666,819	9.60	15,753,430	69.72
1961	5,829,201	9.47	15,168,130	59.91
1962	5,950,807	9.47	15,159,490	56.24
1963	6,075,365	9.16	15,223,700	53.11
1964	6,693,149	8.74	16,316,430	51.26
1965	6,119,848	6.94	14,038,420	39.07
1966	7,636,147	7.36	16,755,120	44.85
1967	8,123,073	7.72	16,741,590	44.68
1968	8,838,578	7.84	17,286,010	45.58
1969	10,248,610	8.06	18,998,900	49.09
1970	10,477,900	7.39	18,257,460	48.93
1971	11,332,510	7.63	18,401,570	50.16
1972	12,558,680	7.21	18,912,600	50.17
1973	12,434,000	6.21	17,541,260	41.92
1974	17,895,000	7.44	22,848,560	51.55
1975	25,983,000	8.36	29,250,710	73.95
1976	31,435,000	8.03	32,009,790	73.79

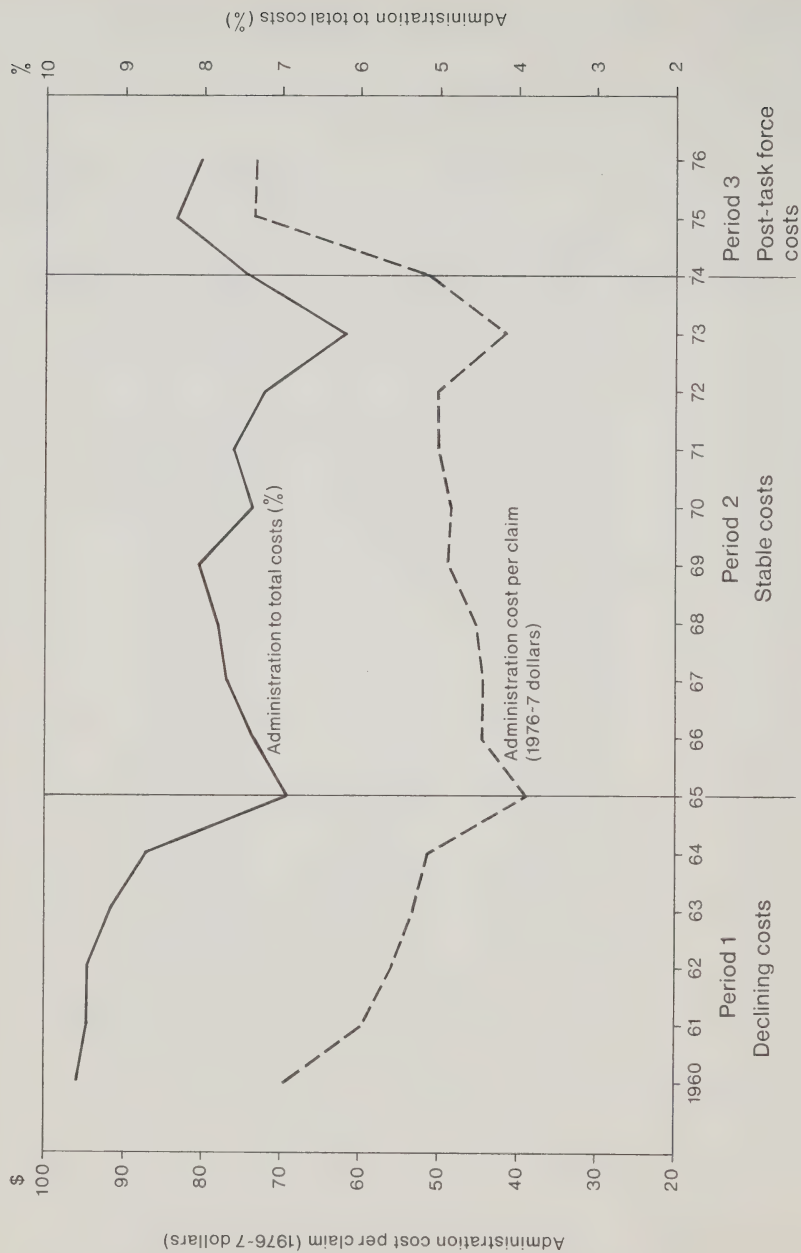
SOURCE: Tables A5 through A10

TABLE 7: Ontario - workmen's compensation (Schedule 1)

Calendar year	Adminis- tration cost (\$)	Adminis- tration costs to total cost (%)	Administra- tion costs indexed to 1976-7 dollars (\$)	Indexed adminis- tration cost per claim sub- mitted (\$)
1960	5,134,767	9.69	14,274,350	70.11
1961	5,280,229	9.56	13,739,650	60.98
1962	5,353,552	9.54	13,638,000	56.60
1963	5,461,045	9.16	13,684,330	53.11
1964	6,058,958	8.81	14,770,410	51.84
1965	5,468,051	6.86	12,543,250	38.78
1966	6,885,478	7.37	15,108,010	44.74
1967	7,095,467	7.47	14,623,700	43.32
1968	7,534,371	7.45	14,735,310	44.51
1969	8,411,011	7.43	15,592,350	44.92
1970	8,796,993	6.95	15,328,520	45.95
1971	9,672,583	7.32	15,706,210	48.49
1972	10,341,780	6.68	15,574,090	47.05
1973	11,051,000	6.16	15,590,190	41.86
1974	15,816,000	7.33	20,194,070	51.48
1975	23,262,000	8.33	26,187,510	74.90
1976	27,437,000	7.77	27,938,680	72.94

SOURCE: Tables A5 through A10

Figure 2: Ontario- workmen's compensation (total program)



The analysis of trends in administration as a percentage of total costs for the three periods is as follows:

	Coefficient of variation			
	Mean (%)	(%)	T-Value	Slope
<u>Schedule 1</u>				
1960-5	8.94	7.2	3.097	-0.47
1966-74	7.13	5.5	1.833	Not significant
1975 & 1976	8.05			
<u>Total</u>				
1960-5	8.9	6.9	3.064	-0.45
1966-74	7.43	6.5	1.563	Not significant
1975 & 1976	8.2			

As Figure 2 shows, percentage costs in the first period declined by about 0.5 per cent a year. During this period both the caseload and the range of benefits increased every year, resulting in a relatively large annual increase in transfers and a consequent decline in percentage costs. In the second period caseload remained quite stable, except for 1973 and 1974, with increases in transfers paid remaining proportional to increases in the cost of administration. Table 6 shows that the largest deviation from the best-fitting line in the 1966-74 period occurred in 1973, when a very large increase in caseload, a consequent substantial increase in transfers, but no increase in administrative costs, resulted in very low percentage costs. No doubt the increase in caseload was unanticipated, and the administrative difficulties in dealing with it probably contributed to the convening in 1973 of a legislative task force to report on the operations of the Workmen's Compensation Board. One result of the task force was a large upgrading in the capacities of the Board, including increases in staff, reflected in the employment data of Table A6. This and an equally unanticipated decrease in caseload in 1975 have

resulted in the higher percentage costs of the third period.

#### Costs per case

The administrative costs per case of workmen's compensation are less stable than administrative costs as a percentage of benefits paid: Schedule 1, mean \$52.45, coefficient of variation 21.9 per cent; Total, mean \$53.18, coefficient of variation 20.3 per cent. However, costs per case also seem to fall into three periods, as displayed in Figure 2. The analysis of trends in administrative costs per case for the three periods is as follows:

	Coefficient of variation		T-Value	Slope
	Mean (\$)	(%)		
<u>Schedule 1</u>				
1960-5	55.24	5.8	7.051	-5.36
1966-74	48.81	5.8	1.5096	Not significant
1975 & 1976	73.92			
<u>Total</u>				
1960-5	54.89	5.7	7.0150	-5.21
1966-74	47.43	6.7	1.1641	Not significant
1975 & 1976	73.87			

As is clear from these data, 1975 and 1976 saw a large jump in costs to more than \$70 per case, while before 1965 costs had been gradually decreasing from \$70 per case. The higher cost of the years 1960 through 1965 may be partially attributable to the lower levels of caseload experienced in those years. In other words there may have been significant economics of scale allowing a gradual reduction of high costs per case as caseload increased during the 1960-5 period. After 1965 caseload did not continue to increase at the same rate.

The large increases experienced in 1975 and 1976 seem due



to the task force report on the Workmen's Compensation Board and lower-than-anticipated levels of caseload. While the employment data series is not restricted to delivery of benefits, it provides some evidence in favour of this explanation. Until 1974, the change in the number of employees had never exceeded 8.1 per cent annually with a mean change of 1.6 per cent. In 1974 and 1975 the number of employees increased by 18.4 and 14.9 per cent. Although some of this additional employment was absorbed into social services, a good deal of it was doubtless to upgrade the Claims Section. The costs of this new employment would appear in 1975 and after.

A not unlikely reconstruction of the history of the Board's administrative costs per case would show that it had been absorbing additional workload between 1960 and 1965 at decreasing marginal administrative costs. After 1965 there was little increase in caseload, the average cost per case remaining stable at the level established in 1965. But in 1973 there was a very large increase in caseload, probably unanticipated, because no supplementation to the administration of the program had been budgeted to deal with the additional workload. This implied a large decrease in costs per case in 1973, as may be seen in Figure 2. However, this also led to greater problems in meeting commitments to injured workers and contributed to the establishment of the task force. As a result the Board's administration was supplemented, perhaps somewhat beyond necessary levels. Caseload did not continue to increase in 1975 and 1976 as it had done previously, no doubt in part because of high levels of unemployment, and the result was higher costs per case for 1975 and 1976. If caseload should increase in subsequent years, it seems reasonable to assume that this additional workload may be met with little addition to administrative costs, which will lead to falling costs per case after 1975.

## Conclusion

Administration costs as a percentage of total costs in

workmen's compensation are lower than might be expected given the complex nature of eligibility determination. There has been no visible trend towards increasing percentages; instead, administrative costs have remained a constant or decreasing proportion of total costs for the majority of the seventeen years for which data are available. Costs per case were more or less constant for nine of the seventeen years, with falling costs in the first six years and a large increase in costs in the last two years. The decline in costs per case in the early 1960s may be attributed to economies of scale as caseload increased. The increase of the last two years is related to upgrading of procedures following the task force report of 1974, and it may be reversed if caseload increases.

The political process appears to introduce a certain 'lumpiness' to what might otherwise be highly variable costs. Small increases in workload appear to be absorbed without much change in workforce, but a large increase in workload may result in problems beginning to appear in the program. The political apparatus is then activated, and the response is a large increase in workforce. The cycle may then repeat itself if caseload continues to increase. Since costs will average out over the period of the cycle, this is not necessarily a wasteful process. However, if caseload does not increase, the cycle may be frozen for some time at its uppermost limit, implying unnecessarily high costs per case. On the other hand if the political system fails to activate at the nadir of the cycle the operation of the program may become extremely problem-ridden.

#### ONTARIO - MUNICIPAL ALLOWANCES

In Ontario, municipalities provide financial assistance to persons in need who are not eligible for provincial allowances, most benefits being paid under the General Welfare Assistance Act. Most beneficiaries receive assistance for only a short time, until employment has been obtained or eligibility for

provincial allowances has been established, As with provincial allowances eligibility and amount of payment is established and maintained according to a rigorous needs test. In general, the average amount of benefits is somewhat lower than provincial allowance benefits. While the municipalities also operate parallel programs to provide social services, such as home-makers, the present discussion is restricted to benefits paid and administrative costs incurred in the delivery of cash benefits under the General Welfare Assistance Act. The program has remained basically unchanged in the period for which we have data. The Act was revised in 1967-8 to coincide with the introduction of the Provincial Family Benefits Act, resulting mainly in increased average benefits. Benefits were again increased substantially in 1970-1.

#### Data considerations

Provincial cost-sharing of municipal administration expenses began in 1965-6, providing subsidization computed according to costs exceeding 1964-5 base year costs. Thus our estimates of administrative expenses begin in 1964-5, prior to which no consolidated accounting of such expenses was kept. Estimates of administrative expense, Table A11, may include some administrative costs incurred in the delivery of social services, but the amount of error should be very small. Estimates of the amount of benefits transferred, Table A12, include living allowances, supplementary aid, special assistance, and assistance paid by Indian Bands. Amounts paid for 'dependent fathers, widows, and unmarried women' have been netted from the estimates since these benefits, although paid under the authority of the General Welfare Assistance Act, were apparently administered by the province. Since these benefits were phased out after 1967-8, removing them also improves the consistency of the series.

While there have been some problems in obtaining estimates of administrative expense and total transfers paid, the real deficiency in data for municipal allowances concerns caseload.

Estimates are given in Table A13 for caseload stock as of 31 March of each fiscal year. Average caseload stock data are unavailable before 1968-9, so that the only consistent series of caseload stock estimates is that based on the caseload for the last day of the fiscal year. Unfortunately this estimate does not appear to be a reliable indicator of average stock. The absence of good estimates of caseload stock would not be of too much concern if there were compensating estimates of caseload flow. However, there appear to be no data on caseload flow, such as numbers of applications processed in a fiscal year. From post-1971-2 statistics on length of enrolment as of 31 March, it appears that approximately 20 per cent of beneficiaries had applied for benefits in that month. We might then make a very rough calculation that flow is about 240 per cent of stock. Given that length of enrolment data is insufficiently detailed prior to 1971-2, even this very unreliable method of estimating flow would have to be extrapolated for the majority of the series before it would be of use, and it could only be extrapolated from figures which are themselves not necessarily representative of average caseload stock. For all these reasons we have not attempted to produce an administrative-cost-per case series for municipal allowances but have presented only administration as a percentage of total cost. This series appears sufficiently interesting to compensate partially for the missing series.

#### Administration as a percentage of total costs

In view of the relatively low average benefits paid through municipal allowances and the relatively complex determination of eligibility, it is not too surprising to find that municipal allowance administration is on average a higher percentage of total costs than any other program discussed in this paper. The series is presented in column 3 of Table 8. The series mean is 10.31 per cent, substantially greater than that for any other program. It is evident, though, that the series as a whole cannot be well represented by a straight line.

TABLE 8: Ontario - municipal allowances

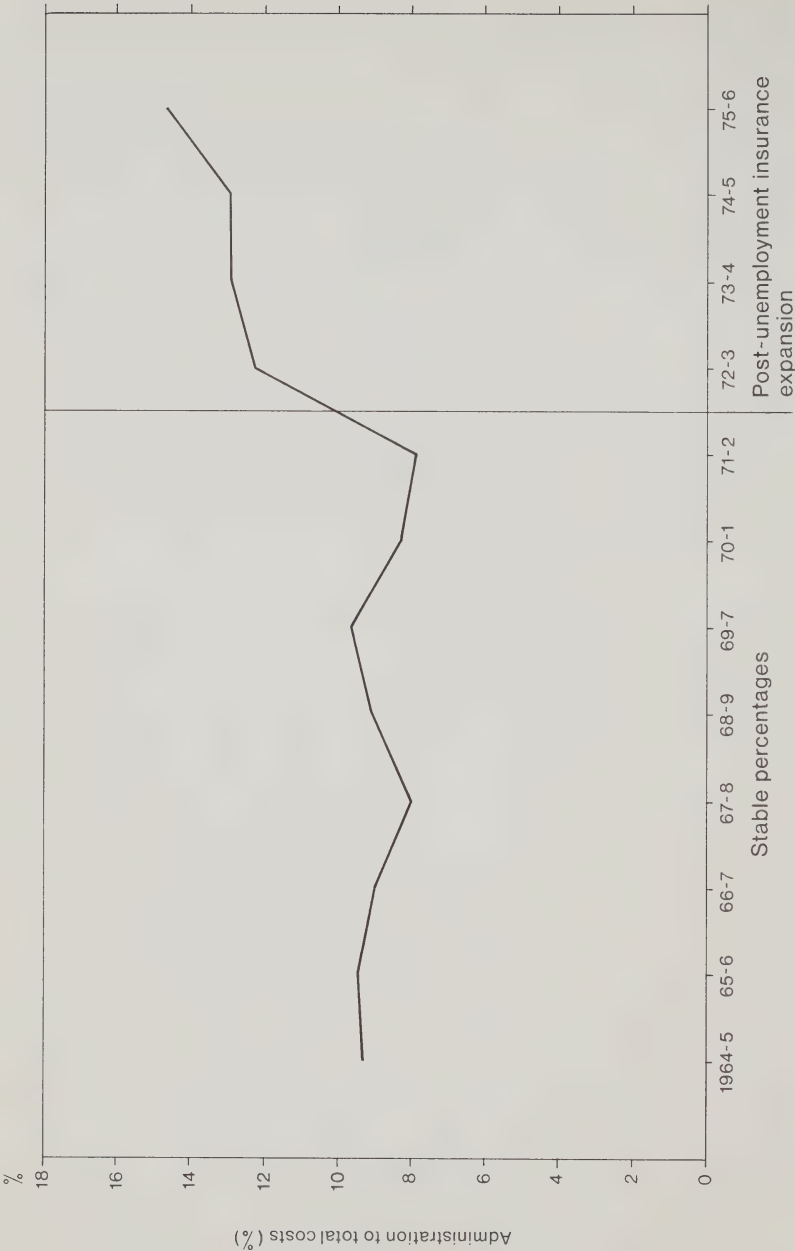
Calendar year commencing 1 April	Administration cost (\$)	Administration costs to total costs (%)
1964-5	3,498,768	9.36
1965-6	3,546,892	9.44
1966-7	3,729,946	9.02
1967-8	3,861,162	8.00
1968-9	6,783,200	9.10
1969-70	7,667,743	9.65
1970-1	9,967,528	8.33
1971-2	12,962,740	7.93
1972-3	16,371,820	12.26
1973-4	16,961,820	12.98
1974-5	19,938,100	12.98
1975-6	27,637,840	14.72

SOURCE: Tables A11 through A13

In fact the coefficient of variation for the best-fitting line for the entire series is 15.6 per cent. If we segment the series before and after 1972-3, as in Figure 3, each segment considered individually may be adequately summarized by fitting a line. From 1964-5 to 1971-2 the mean ratio of administration over total costs was 8.9 per cent, with a coefficient of variation for the best-fitting line of 6.9 per cent. The slope of the line is not statistically significant to 95 per cent probability. Thus the trend for these eight years of observation was apparently that of stable percentages at approximately the 9.0 per cent level. Obviously, the second segment has a much higher mean. From 1972-3 through 1975-6 the mean ratio of administration cost to total cost was 13.2 per cent, with a coefficient of variation for the best-fitting line of 4 per cent. The slope for this segment is not significant to the 95 per cent level. The extremely high mean and the shift upwards in percentages in recent years are, as we shall see, in stark contrast to any other program.

The unusual results of our analysis call out for additional corroboration in further data. If the series is

Figure 3: Ontario - municipal allowances





correct, large municipalities taken individually should have experienced similar administration costs as a percentage of total costs. While data were very limited, three municipalities surveyed reported as in the accompanying table.

Administration to total costs in three municipalities

	Administration costs (\$)	Total costs (\$)	%
<u>Metro Toronto</u>			
1977	8,900,000	66,300,00	13.4
<u>Ottawa-Carleton</u>			
1975	1,076,000	9,570,000	11.2
1976	1,240,000	9,104,000	13.6
1977	1,440,000	8,811,000	16.3
<u>City of London</u>			
1973	603,000	5,679,000	10.6
1974	N/A	N/A	
1975	718,000	5,005,000	14.4
1976	780,000	4,786,000	16.3
1977	870,000	5,329,000(est)	16.3

NOTE: Data assembled from telephone interviews of officials in each of the three municipalities. There may be a small underestimation of transfers because of the exclusion of some benefits included in aggregated transfer data.

Both the escalation in costs and the very high percentages of our aggregate series are also evident in the reports from these municipalities. Thus the series appears to have a good deal of credibility. How can it be explained?

While there were no substantial design changes in municipal allowances during the period under discussion, municipal allowances are highly influenced by changes in other programs

because they are essentially residual, that is, a municipal allowance is paid to anyone who is in need but is ineligible for another program. Since the major cause of need for municipal assistance is unemployment, that assistance will be highly influenced by changes in unemployment insurance. As is discussed below, extensive revisions in unemployment insurance became fully effective in the 1972-3 fiscal year. Table A12 shows that transfers paid by municipalities decreased substantially in that year, no doubt as a response to the greater eligibility, longer duration, and higher amounts of unemployment insurance benefits. Even in nominal dollars, transfers paid by municipalities did not increase to 1970-1 levels until 1975-6. In constant dollars, transfers have still not increased to 1970-1 levels. While transfers paid fell, there was no concurrent reduction in administrative costs. Thus the expansion of unemployment insurance would appear to explain the division of the series into two segments and, assuming no decrease in administrative costs, the much higher percentages of the second segment.

Unfortunately, without caseload data it is impossible to explain why administrative costs did not also fall. The lower total transfers may be attributed to either reduced caseload stock or a much lower average benefit. Although the duration of benefits may have fallen, it is unlikely that average benefits per recipient per week were less. Therefore, it appears that caseload stock did decrease from 1970-1 levels. While the caseload estimates in the appendix are not useful for detailed analysis, they confirm this conclusion at least so far as caseload stock at the end of March is considered representative. There are then only four possible explanations for administrative costs not decreasing:

- average case complexity increased when unemployment insurance was expanded because the most complex cases remained on municipal assistance;
- caseload flow increased substantially when unemployment insurance was introduced, but the duration of municipal benefits decreased;
- the selectivity of the program was increased substantially, probably through administrative routine rather than by-laws;

- the administration of municipal allowances became less efficient, as work force was not reduced in line with diminished work load.

It is quite possible that each of these causes had some degree of influence, but without further caseload information it is impossible to judge.

## Conclusions

Before the expansion of unemployment insurance, the ratio of administrative cost to total cost of municipal allowances was about 9 per cent, with no trend towards increase or decrease. Following the expansion of unemployment insurance, total transfers paid decreased substantially, but with no concurrent decrease in administrative costs. As a result the ratio of administration to total costs increased to a much higher level, with a mean of over 13 per cent.

In view of such high percentages it is clear that savings in administrative cost may have a significant impact on the over-all bill for municipal allowances. Whether such savings are possible, given the constraints of program design, or whether the program could be redesigned to accomplish the same objectives at lower administrative costs remains to be seen. It may be that the difficulty of delivering a program to the population served by municipal allowances demands very high administrative costs, although the lower percentages before 1972-3 contradict this assumption. In any event, the problem may correct itself with the new revisions of unemployment insurance. These will no doubt increase the workload of municipal allowances, and if administration increases are kept to a minimum the ratio of administration to total cost will probably fall dramatically. Of course this would only follow from a dramatic increase in municipal transfers.

## CANADA - UNEMPLOYMENT INSURANCE

Unemployment insurance is a national program providing

financial assistance to insured employees during periods of unemployment. The amount of assistance paid per week is determined primarily by average insurable earnings. Eligibility is maintained by proof of availability for employment. The duration of benefits is dependent upon such factors as weeks of contribution and the extent of unemployment in the particular region.

Unemployment insurance remained basically unchanged from its inception in 1940 until 1971, the only major administrative change in that period being the separation of unemployment insurance from other government manpower functions. A new Unemployment Insurance Act became effective in June 1971, almost doubling maximum benefits, widely increasing coverage, reducing required weeks of contribution, and in other ways increasing the scope and generosity of the plan.

#### Data considerations

Before 1965-6 administrative costs for unemployment insurance had been included with costs recorded for all the National Employment Service. Thus, figures for 1960-1 through 1964-5 have been estimated only. Unfortunately there is no additional corroboration for these estimates. Our analysis therefore begins with 1965-6, for which more reliable administrative costs are available. The last two years are fiscal-year estimates based on calendar-year reports, so they may be slightly biased downwards, since these years appear to be periods of steeply rising nominal dollar costs. The series on employees of the Unemployment Insurance Commission, Table A15, suffers from the same problem, as does the series of administrative costs prior to 1964-5. Without a reliable series for the number of employees net of employees working for other areas of the National Employment Service, none of the data from 1960-1 through 1964-5 has been used in our analysis. As stated in Table A15, the amounts listed are based on revised budget estimates of man-years. There is some doubt whether these figures have reflected actual total employment by the Commission

to the same extent in each year, depending as they do, among other factors, upon the rigidity with which Treasury Board happened to administer man-year allotments in a particular year. The employment series must then be treated with some caution.

The total benefits paid and the caseload data, listed in Tables A16 and A17, appear highly reliable. The only qualification is that described in Table A17 regarding the estimates of caseload stock. As stated, these estimates may only be used to indicate a real change in actual stock where there is a very large change in the estimates, since they are subject to a great deal of error. We shall in any event be using caseload flow, as measured according to initial and renewal claims received, in analysing costs per case.

#### Administration as a percentage of total costs

There has been a clear tendency towards lower administrative costs as a percentage of the total cost of unemployment insurance, as shown in column 3 of Table 10. Of the eleven years for which we have reliable data, only two years saw increases. A straight line with a statistically significant negative slope of 0.75 percentage points per year most accurately fits the percentage costs which have been experienced in the last decade (T-value of 10.56). The coefficient of variation from the best-fitting line is 8.4 per cent. The mean of the actual observations is 8.9 per cent. Although no direct relationship exists, this trend towards lower administrative percentages seems explained primarily by the very large increases in benefit payments since 1965-6. Table 9 illustrates the changes in benefits and percentage administrative costs. While there has been a large increase in total benefits paid in all the income security programs analysed in this paper, no other program has experienced such large increases in total transfers paid with the exception of family allowances.

Such a trend towards decreasing administrative costs as a percentage of total costs cannot continue at the same rate

TABLE 9: Unemployment insurance, changes in benefits and in administrative percentage costs

Fiscal year	Adminis- tration total (%)	Change (%)	Total benefits (\$M)	Change (%)
1965-6	13.28		297.8	
1966-7	12.76	(3.9)	307.0	3.1
1967-8	10.79	(15.4)	388.6	26.6
1968-9	9.47	(12.23)	459.1	18.1
1969-70	9.29	(1.9)	542.1	18.1
1970-1	8.88	(4.4)	783.7	44.6
1971-2	8.16	(8.1)	1,147.4	46.4
1972-3	6.06	(25.7)	2,020.6	76.1
1973-4	6.62	9.2	2,016.0	(0.2)
1974-5	6.82	3.0	2,321.2	15.1
1975-6	5.53	(18.9)	3,333.3	43.6
Average change		(7.8)		29.2

indefinitely, since administrative costs would very quickly fall to zero. Another way to interpret the series of percentages in Table 10, an interpretation similar to that for many other programs, is as a trend towards decreasing percentages ending in 1971-2 with the introduction of the new Unemployment Act. The best-fitting line from 1965-6 through 1971-2 decreases at a rate of 0.88 percentage points a year and has a coefficient of variation of 5.8 per cent (T-value 7.77). Thus this line fits the eight years of observed data more closely than does a trend line for all eleven years of observation. While the non-linear variation in costs from 1972-3 through 1975-6 is too large to derive a meaningful trend, it may be hypothesized that since 1972-3 there has been a levelling of



TABLE 10: Canada - unemployment insurance

Fiscal year (commenc- ing 1 April)	Administra- tion cost (\$)	Administra- tion costs to total costs (\$)	Indexed administra- tion costs (1976-7) (\$)	Indexed administra- tion costs per claim received (\$)	Employees per 10,000 claims received
1965-6	45,600,000	13.28	101,780,600	64.05	43.98
1966-7	44,900,000	12.76	95,136,250	58.73	42.99
1967-8	47,000,000	10.79	93,461,590	49.48	36.87
1968-9	48,000,000	9.47	90,721,030	49.14	35.32
1969-70	55,500,000	9.29	99,882,450	51.78	29.47
1970-1	76,400,000	8.88	130,765,500	56.68	28.04
1971-2	101,900,000	8.16	161,871,100	69.80	25.97
1972-3	130,400,000	6.06	192,621,000	80.70	45.00
1973-4	142,800,000	6.62	197,892,600	87.45	53.03
1974-5	170,000,000	6.82	208,896,500	81.28	43.85
1975-6	195,100,000	5.53	212,921,500	77.20	41.55

SOURCE: Tables A14 through A18

percentage administrative costs. The very large decrease between 1974-5 and 1975-6 could be attributed to the rigid enforcement of austerity measures in the federal government, including a freeze on new hiring. Overpayments in 1975-6 were estimated at approximately \$100 million (Canada, Public Accounts, 1975-6) about 3 per cent of transfers paid, so that the reduction in administrative percentage of cost may have reached a limit.

If unemployment insurance were to remain substantially unchanged for the next few years, it might then be reasonable to predict continued administrative cost percentages in the 6 to 7 per cent range. However, unemployment insurance has now once more been revised, and, because the revisions are likely to reduce the total entitlement of the average claimant, the administrative cost percentages will probably increase in 1977-8.

#### Costs per case

The costs per case of unemployment insurance have been quite unstable over the past eleven years. The mean cost per claim has been \$66.03 and the coefficient of variation 14.6 per cent. Thus the mean represents merely the average of many disparate figures rather than a long-term trend. A visual inspection of costs per case, listed in Table 10 and charted in Figure 4, suggests five periods: in 1965-6 and 1966-7 cost were falling; from 1967-8 through 1969-70 they remained relatively stable; from 1970-1 through 1973-4 they increased; and they apparently fell again in 1974-5 and 1975-6.

This series can be viewed in several ways all of which equally suit the observed evidence. Other programs, however, revealed a pattern: in the absence of substantial program change, costs per case remained stable or declined, and immediately upon a program change costs increased dramatically, after which they again either remained stable or declined. Although evidence is not as well defined, a similar pattern

may be observed in unemployment insurance. From 1965-6 through 1970-1, costs remained relatively stable, with mean costs per case of \$54.98, a coefficient of variation of 10.2 per cent, and no statistically significant slope.(2) The first full year of operation of the new Act was 1972-3, when costs rose to a new plateau of about \$82.00, where they remained during the next three years for which data are available. The new Act became effective at the end of June 1971, so that 1971-2 would be an amalgam of about 25 per cent of the old mean and 75 per cent of the new, or about \$74.00. In 1971-2 costs per case were \$69.80, but many claimants were still receiving benefits under the old Act until January 1972.

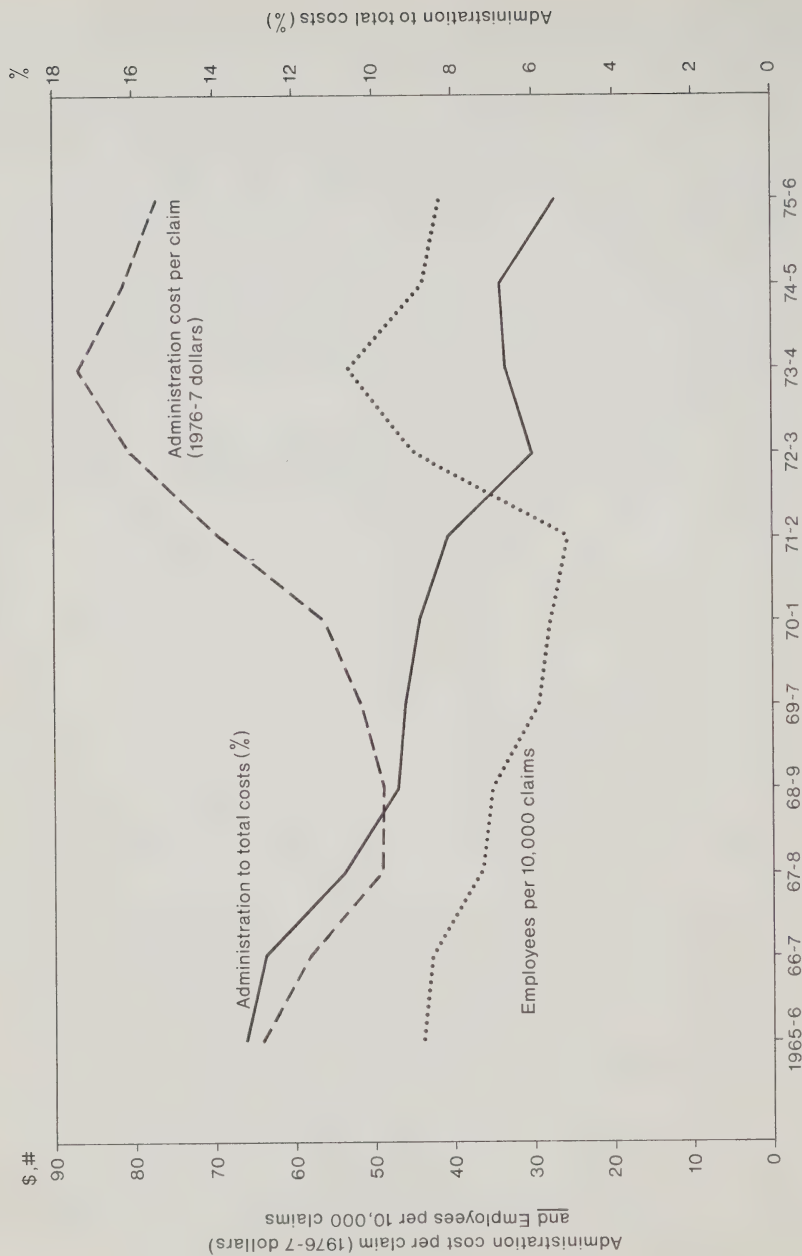
This pattern is further corroborated by the series on the number of Unemployment Insurance Commission employees per 10,000 claims (Table 10 and Figure 4). Here we see a very steady decline until 1971-2 and then an immediate jump to a much higher level after the new Act comes into effect. The estimate of number of employees for 1971-2 is suspect, since the great increase in administration costs in that year cannot be attributed to non-labour expenses. It is therefore reasonable to assume that a more accurate estimate of number of employees at the Unemployment Insurance Commission in 1971-2 would be much higher, and the series on employees per 10,000 claims would then be even more like the cost-per-claim series.

On this interpretation two questions remain to be answered: how can the variations from the mean within each

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2 Although the coefficient of variation remains slightly greater than the critical level of 10 per cent, unemployment insurance has a much greater variation between years in caseload than other programs. Whereas in other programs caseload tends to increase or decrease fairly steadily over a number of years, change in caseload is quite erratic for unemployment insurance. Thus it might be reasonable to consider a moving average of two or three years of administration costs for unemployment insurance since the system cannot be expected to respond to short-lived changes in caseload. This, however, would imply the loss of too many years of data for further analysis. Given the difficulty of linear results, a 10.2 per cent coefficient of variation may be seen as representing an acceptable summary of observation, although not quite as close a trend line as was found in other cases.

Figure 4: Canada - unemployment insurance



plateau be explained, and, more important, why did the new Act result in higher administrative costs per case? The first question can be at least partly explained by assuming that there is no immediate administrative response to change in workload in the operation of unemployment insurance. In other words, administrative resources are allocated according to expected workload, not actual workload, and when expectations fail to materialize the result is higher administrative cost in relation to actual workload. Both 1965-6 and 1973-4, in which costs are much higher than their respective means, are years in which the number of claims fell. The high costs per case of 1966-7 might also be explained by an incomplete adjustment to the lower level of workload in the previous year. This leaves 1970-1 as the only year in which high costs per case cannot be explained simply by a lower number of cases.

Initial and renewal claims received are a reasonably good indication of caseload flow, but of course they do not indicate changes in caseload stock or complexity. Since there were no significant changes in program design in 1970-1, the high costs in that year may be explained by a change in either caseload stock or complexity or by a decrease in efficiency. In fact, there seems to have been a very large increase in caseload stock in 1970-1. Although, as explained in Table A17, stock estimates for the Unemployment Insurance Commission are extremely unreliable, estimated stock increased from 267,600 in 1969-70 to 392,500 in 1970-1. Since we know that the direction of error in estimation is always positive; i.e. towards over-estimation, then even if we assume the worst-case possibility that 1969-70 figures are exactly accurate and 1970-1 figures are overestimated by 20 per cent, the increase in stock is still in the order of 20 per cent. Thus the 1970-1 cost increase may be in part attributed to increases in caseload stock, although the exact size of the increase remains in question.

This analysis may also be applied to the second question posed above: why did the new Act apparently result in higher costs per case? In general there are three possible replies to this question:

- without any change in the nature or size of the caseload, the administrative requirements of the new Act added workload:

- administrators took advantage of the introduction of a new Act to demand increased administrative budgets, despite the fact that increased budgets were not actually required:

- the design of the new Act or circumstances coincident with the introduction of the new Act were such as to cause a change in the nature or size of the caseload:

Given our estimates of stock, there is good reason to suppose that the latter is the most applicable reply in the case of the new Unemployment Insurance Act. Even in the worst-case estimate described above, caseload stock increased from 1971-2 to 1972-3 by about 24 per cent. This change in stock is even more dramatic if we compare average pre-1970-1 stock estimates with average post-1971-2 stock estimates. Using the worst-case estimate, average stock after the new Act compared to average stock a few years before increased by approximately 150 per cent. It is easy to see that by allowing claimants to retain benefits for longer periods the new Act contributed to this increase in caseload stock. Higher levels of unemployment no doubt also contributed to longer duration of benefits. Unfortunately a more definitive analysis cannot be undertaken without reliable historical data on the number of beneficiaries of unemployment insurance.

## Conclusions

Administrative costs as a percentage of total costs paid by unemployment insurance decreased until 1972-3, after which they remained relatively stable at approximately 6 per cent. The trend in administrative costs as a percentage of total costs may be largely attributed to the size of benefit payments. While the trend of costs per claim is less clear, it is hypothesized here that costs per claim remained stable until the introduction of the new Act in 1971, after which they increased from \$55.00 per claim to a new plateau of about \$82.00. This hypothesis is substantiated by a similar pattern in the number of persons employed by the Unemployment Insurance

Commission compared to the number of claims. The figure of \$82.00 per claim should be regarded with some caution, since it is cost per caseload flow, and caseload stock has become relatively more important in later years. Thus the post-1972 increase in costs per case may be due to the large increase in caseload stock of the unemployment insurance program.

While the very large size of the unemployment insurance program implies that savings in administrative costs of 5 to 10 per cent may be substantial in absolute terms (\$10 million to \$20 million), their small proportion of total program size would likely render them unrecognizable within total program expenditures. Administrative savings of 10 per cent are about 0.5 per cent of total transfers. Persons searching for dramatic reductions in the cost of government must then address areas other than the administration of unemployment insurance. Similarly, it cannot be claimed that tax dollars meant for the unemployed are being rapidly consumed by the bureaucratic machine operating unemployment insurance.

#### CANADA - OLD AGE PROGRAMS

The income security programs for the elderly discussed in this report under 'old age programs' include Canada's largest systems of transfer payments. The three programs for which we have aggregated data are: old age security (OAS), guaranteed income supplement (GIS), and spouse's allowance. The first provides a single monthly payment to every Canadian over sixty-five, subject only to proof of age and some residence requirements. The guaranteed income supplement and spouse's allowance are, in contrast, both income-tested. The income test however, is as simplified as possible. The spouse's allowance is a relatively recent addition, begun in 1975-6, providing supplementary payment on an income-tested basis to any couple in which one individual is sixty-five or over and the other between sixty and sixty-five. The OAS is by far the largest component in terms of amount paid, payments under the



GIS being less than half that amount and spouse's allowance consisting as yet of only a tiny fraction of OAS (less than 1 per cent). In terms of caseload, more than half of all OAS recipients receive some GIS benefits as well.

#### Data considerations

Unfortunately no public information is available concerning the cost of administration of Canada's old age programs. In fact, there are apparently no disaggregated data on the cost of administration separate from the family allowance program. Historically, these programs were operated together by single bureaus, and until recently no attempt was made to separate their administration costs. Since 1971-2, estimates have been made concerning the proportion of total family allowance workforce devoted to the old age programs. These estimates were provided by Health and Welfare Canada. Administrative cost estimates for old age programs were derived by prorating total old age and family allowance administrative costs, figures for which were also provided by Health and Welfare Canada, according to the proportion of workforce utilized for each program. However, the series is limited to the six fiscal years from 1971-2 through 1976-7.

Data on transfer payments and caseload, unlike administrative costs, are available and reliable. Caseload figures are the number of recipients of any payment under any of the three programs as of March of each fiscal year. Because there is a very small flow of recipients compared to stock, we have not attempted to provide estimates of caseload flow.

#### Administration as a percentage of total costs

Given the relatively large average payment and the ease of eligibility requirements, particularly for the OAS, it is reasonable to expect administration costs to be a very small percentage of total costs; Table 11 shows this to be indeed the case. The mean percentage of administration to total costs was

TABLE 11: Canada - old age programs

Fiscal year (commenc- ing 1 April)	Administra- tion cost (\$)	Administra- tion costs to total costs (%)	Administra- tion costs indexed to 1976-7 (\$)	Indexed administra- tion costs per recipient (\$)	Employees per 10,000 recipients
1971-72	9,734,775	0.440	15,507,560	8.80	6.427
1972-73	11,161,460	0.440	16,466,860	9.11	6.404
1973-74	11,956,780	0.393	16,511,320	8.88	6.080
1974-75	14,376,340	0.415	17,710,670	9.25	5.825
1975-76	16,586,780	0.420	18,149,050	9.27	6.519
1976-77	19,816,300	0.445	19,816,300	9.84	6.518

SOURCE: Tables A19 through A22

0.43 per cent or less than one-half of 1 per cent. Furthermore, the six years for which data are available have seen very little change in these percentages. The coefficient of variation of the series is 5.3 per cent and there is no statistically significant slope. The range of the series is 0.052 percentage points. The absence of significant change implies that the series trend is towards maintenance of administrative costs as a constant percentage of total cost.

The variations which do exist, while small, may be partially explained by a number of factors. The apparent decrease in percentage costs in 1973-4 may be attributed to the large increase in transfers paid in that year. The increase in percentage costs in 1976-7 may be attributed to the introduction of the spouse's allowance, which, though small in size, is relatively complex to administer and, as a new program, imposes additional demands.

It would be most interesting to have data available on separate costs for each of the three programs. If the spouse's allowance has indeed contributed significantly to the increase in administrative costs as a percentage of total costs in the last few years, then this program is clearly much more demanding administratively than the OAS and GIS. In the absence of better data, it is possible to provide some rough estimates of the costs of spouse's allowance. The increase in total administrative costs from 1974-5 to 1975-6 is approximately \$2.5 million, and the increase from 1975-6 to 1976-7 is about \$3.3 million. If we make the extreme assumption that half of these increases can be attributed to the introduction of spouse's allowance, the administrative costs of spouse's allowance in 1976-7 were \$2.9 million. In 1976-7 total payments under Spouse's Allowance were \$100,626,000 (Canada, *Public Accounts*, 1976-7). Thus administrative costs for spouse's allowance would have been 2.8 per cent of total cost. Of course this is not an estimate of the actual percentage. It may, though, be considered an upper limit, so that we can safely say that administrative costs as a percentage of the total cost of spouse's allowance could not have been higher than 2.8 per cent.

Using similar rough measures we may also derive some upper limits for the administrative costs of GIS. Assuming the most extreme possibility, that all administrative costs were for GIS, that is, there were no administrative costs for OAS or spouse's allowance, the percentage administrative costs for GIS are as presented in Table 12. More realistically, if about

TABLE 12: GIS administration as a percentage of total costs (assuming other programs had no administrative costs)

	GIS transfers paid (\$)	Administration costs (total for all programs) (\$)	Administration costs to total cost (%)
1971-2	526,060,000	9,733,000	1.9
1972-3	737,925,000	11,162,000	1.5
1973-4	760,068,000	11,957,000	1.6
1974-5	837,198,000	14,376,000	1.7
1975-6	923,009,000	16,587,000	1.8
1976-7	1,017,128,000	19,816,000	2.0

SOURCE: Canada, *Public Accounts*, and Table A19

one-half of the administrative costs were attributable to GIS, those costs would be between 0.8 and 1 per cent of total costs.

While these figures cannot be regarded as estimates, they do at least provide some indications of the administrative percentages involved in the component schemes of the old age programs discussed here. The very small percentages that, even under the most extreme assumptions, can be attributed to the GIS indicate that the simple GIS incomes test is extremely inexpensive to administer. Moreover, savings in administrative cost by further simplifying or reducing the use of the incomes test would be minimal compared to the total program cost.

## Cost per case

The administrative costs per recipient of the old age programs are presented in Table 11. As can be seen, like administrative costs as a percentage of transfers, these are very stable amounts. In fact the coefficient of variation is 2.2 per cent of the \$9.19 mean cost per recipient; there is, though, a high T-value of 3.6317. Thus the positive slope of 0.17 is statistically significant. In other words, the cost per case according to the best-fitting line tends to increase by 17¢ a year. This trend appears, however, to be primarily due to the very large increase in the last year for which data are available, 1976-7, the first full year in which spouse's allowance was in operation.

Thus we might alternatively interpret the data as displaying a shift upwards in costs which would be discernible if there were additional data after 1976-7. In this case the trend from 1971-2 through 1975-6, which has a mean of \$9.06, a coefficient of variation of 1.6 per cent, and no statistically significant slope, would more accurately represent the historical record of the old age programs and 1976-7 would represent the beginning of a new trend with a higher mean of about \$9.80 per case. If the experience of other programs is a good indication, this trend might now be expected to remain stable or decline. We may then see the trend of the old age programs' cost per case as similar to those of other programs: in the absence of program change the costs per case remain stable or decline; a substantial program change, in this case the introduction of spouse's allowance, results in a shift upwards in the cost per case.

The finding that there has been little change in cost per case before 1976-7 is further substantiated by the series on employees per recipient. Prior to 1975-6 there was no large increase or decrease in the number of employees per recipient, but there is an increase in employees between 1974-5 and 1975-6 with the introduction of spouse's allowance. This complements the series on costs per case, since the full costs of

additional employment would likely not have appeared until the following year.

Without disaggregated data it is impossible to derive the cost per case of the component programs. However, we may find some indications by estimating the upper limits of costs, as in the previous section. Thus, if we assume that GIS was the source of all administrative costs, the costs per case of GIS would be approximately 1.8 times the cost per case for old age programs as a whole, since about 57 per cent of all OAS recipients received some GIS in each of the six years from 1971 to 1977. The highest possible mean cost per case of GIS is then \$16.54 in 1976-7 dollars. More realistically, if we assume OAS had some cost per case, say \$1.00, the mean cost per case of GIS is about \$15.50. If OAS cost per case is assumed to be \$3.00, the GIS mean cost per case is about \$12.00.

If we attribute the entire increase in mean cost per case in 1976-7, from \$9.06 to \$9.84, to spouse's allowance, the cost per case of that program would be almost \$38.00. More realistically, if we assume that, in the absence of spouse's allowance, OAS and GIS would have continued at about \$9.25 per case, the cost per case of spouse's allowance is about \$31.00.

## Conclusions

The administrative costs of Canada's old age programs are a very small percentage of total costs, less than one-half of 1 per cent. Costs per recipient are less than \$10.00. While there is no observable trend towards higher or lower percentage costs, some increases in costs per case have apparently resulted from the introduction of the new spouse's allowance program in 1975-6, which seems to have shifted upwards the cost per case from about \$9.06 to \$9.84.

The very simple GIS incomes test looks quite inexpensive administratively. However, the non-transfer incomes of the elderly are generally considered to be the most stable over time of those of any large category of the population. Since this stability of non-transfer income may contribute

significantly to the ease of administration of the GIS incomes test, it is by no means certain that low administrative costs would accompany the introduction of a similar incomes test to programs for persons other than the elderly.

#### CANADA - FAMILY ALLOWANCES

In terms of the number of families receiving benefits, the family allowance program is by far the largest single income security program in Canada. It provides a non-income-tested benefit to every family with children aged seventeen or under. Before October 1973, payments of a fixed amount were made by the federal government, with somewhat higher amounts paid to children between sixteen and eighteen. There was a three-month interim increase providing higher and equal benefits to every child until January 1974. After that date average benefits were once again increased, with the provinces allowed to vary the amount paid per child according to either the age of the child or the size of the family so long as the average payment remained the same. Most provinces chose not to take advantage of this offer.

#### Data considerations

As with old age programs, separate data on administrative costs of the family allowance program have not generally been available. This is because the old age programs and the family allowance have been administered together, from the same buildings, in many cases with overlapping staff. However, since 1971-2 estimates have been made of the amount of staff time utilized in the administration of family allowances as distinct from the old age programs. Health and Welfare Canada provided these estimates as well as those of the total administrative costs of old age programs and family allowances. The family allowance shares were then derived by prorating these totals according to the proportion of staff time estimated for the



family allowance program, precisely the same method as was used with the old age programs.

Data on caseload and transfers, in contrast to administrative cost, are publicly available and apparently reliable. Although these two series can be completed from 1960-1 to the present, as in Tables A25 and A26, the absence of administrative cost data prior to 1971-2 restricts our analysis to six years beginning in that fiscal year. It should be noted that caseload as reported in the appendix is stock as of 31 March of each fiscal year. Because there is a very small flow of recipients compared with stock, estimates of the former have not been provided.

#### Administration as a percentage of total costs

Table 13 shows a substantial change in administrative cost as a percentage of total cost over the six years for which data are available. The mean percentage cost is 0.76 per cent, but the coefficient of variation for the best-fitting line is 16.2 per cent. Given the limited number of years, it is difficult to segment this series and derive any statistically meaningful summary. But it is clear there was a steady decrease in percentage costs from 1972-3 through 1975-6. Although there may be a number of alternative interpretations of this apparent downward trend, the simplest explanation would adduce three factors:

- In 1973-4, average family allowance benefits were increased in October and again in January. Thus average payments for the year were higher than in the previous year, resulting in a decrease in percentage costs from the previous year.
- The first full year of higher Family Allowance was 1974-5. Thus average benefits were even higher than in 1973-4, and there was another decrease in percentage costs.
- In 1975-6 the introduction of the new program had been completed, provinces had not generally taken advantage of their right to vary benefit payments, and federal austerity measures were strictly enforced. A combination of these circumstances resulted in a further decline in percentage costs in 1975-6.

TABLE 13: Canada - family allowances

Fiscal year (commencing 1 April)	Administra- tion costs	Administra- tion costs to total costs (%)	Administra- tion costs indexed to 1976-7 dol- lars (\$)	Indexed administra- tion costs per child (\$)	Employees per 10,000 children	Indexed administra- tion costs per family (\$)	Employees per 10,000 families
1971-2	6,229,225	0.97	9,923,193	1.32	0.964	2.80	2.046
1972-3	7,132,540	1.11	10,522,860	1.41	0.988	2.93	2.063
1973-4	7,650,223	0.75	10,564,320	1.46	0.997	3.16	2.162
1974-5	11,065,660	0.61	13,632,140	1.86	1.169	3.96	2.493
1975-6	10,607,220	0.54	11,606,290	1.59	1.116	3.31	2.325
1976-7	10,896,700	0.55	10,896,700	1.50	0.999	3.06	2.027

SOURCE: Tables A23 through A26

If this interpretation is correct and it were possible to extend the series backwards and forwards in time, the result would probably show that before 1973-4 percentage costs had gradually been increasing (simply because average benefits had not been increased with inflation) and after 1975-6 percentage costs would remain stable at about 0.55 per cent. The apparent decline in costs for 1972-3 through 1976-7 is then a misleading result of the timing of benefit increases and other coincidental factors. In other words, as we might expect, doubling benefits payments approximately halved percentage costs.

#### Cost per case

In the family allowance program there are at least two ways in which caseload may be measured: the number of children receiving benefits and the number of families receiving benefits. Since cheques are issued per family rather than per child, so that each family receives one cheque regardless of the number of children for whom benefits are paid, weighing administrative costs against caseload measured by numbers of families may be most reasonable. This problem is not very serious for the six years from 1971-2 to 1976-7 since, whatever measure of caseload is used, there is very little difference in the results for such a short series (because the average number of children per family receiving benefits cannot change much in a short time). We have, in any event, provided data on both measures of caseload.

The administrative costs per child and per family are listed on Table 13. There is a little less change in these costs than in administration as a percentage of transfers. The means and coefficients of variation of the best-fitting trend line are as follows: cost per child, mean \$1.52, coefficient of variation 11.6 per cent; cost per family, mean \$3.20, coefficient of variation 13.0 per cent.

With the introduction of the new family allowance program in 1973-4 there was one administrative simplification and

some additional complications. The new program ended the automatic national payment of higher benefits to families with children between sixteen and eighteen. In fact this simplification occurred in October 1973 with the interim increase of allowances. On the other hand in January 1974 the administrative complexity of the program was increased by allowing provinces to vary allowance payments to families, as described above. The higher 1974-5 cost per case, either per family or per child, may reflect the assessment at the beginning of the year of the amount which should be budgeted in order to respond to provincial requests for variations in the amount of allowances. By 1975-6, as discussed above, three factors caused a reduction in cost per case: first, the initial workload of establishing a new payments system was completed; second, fewer provinces had requested variations in the amount of allowances than had perhaps been anticipated; third, austerity measures were now being strictly enforced. If this interpretation is correct the higher costs associated with the new program would be concentrated almost entirely in 1974-5, after which cost per case would drop to about its former level.

In fact, the best-fitting line for 1971-2 through 1976-7, but leaving out 1974-5, has the following characteristics:

	Coefficient of variation			
	Mean (\$)	(%)	T-value	Slope
Cost per child	1.46	4.0	2.9734	0.055
Cost per family	3.05	5.2	1.7918	Not significant

Thus, costs per case before and after 1974-5 are very close. We might speculate that if a longer series were available it would show a slight increase in the mean cost per case after 1974-5, because of the change in program design. Other than the possibly long-term higher costs per case after 1974-5, the series on cost per child appears to have an increasing slope for two reasons:

- The number of children receiving benefits declined steadily from 1971-2 through 1973-4. This resulted in a small increase in costs per child in each of these years. If the series were extended backwards the trend would likely show no increase.

- Cost per child in 1975-6 remained slightly higher, since the administrative expenses of 1974-5 had not yet been completely reduced.

As can also be seen on Table 13, the number of employees utilized in the delivery of family allowance provides some additional evidence for our estimates of administrative costs. Changes in the number of employees per 10,000 children run parallel to changes in the cost per child; changes in the number of employees per 10,000 families run parallel to changes in the cost per family. Since the series on number of employees was, as described above, provided directly by Health and Welfare Canada and does not have to be indexed to provide a constant measure when compared to caseload, this further supports the estimate of administrative costs per case.

## Conclusions

While administrative costs as a percentage of total costs paid have decreased over the past six years, this decline is due primarily to the large increase in benefits introduced in January 1974. Percentages may now remain stable at approximately the 0.55 per cent level experienced in 1976-7. Costs per case increased slightly, apparently because of the new Family Allowance Act; they may now have stabilized at approximately \$3.00 a family. In general, other than one large increase in costs per case in the first full year of the new Family Allowance Act, too few years of data are available to judge with any certainty whether costs per case were on average consistently lower before the new Act than after.



## Summary and Conclusions

### SUMMARY OF RESULTS

The six programs reviewed provide a good sample of the various ways in which eligibility for income security benefits may be established. Provincial and municipal allowances are both traditional 'welfare' programs where the amount of payment is calculated according to a needs test. Both workmen's compensation and unemployment insurance payments, in contrast, are established mainly according to past earnings of the applicant. Old age programs have been analysed as an aggregate of three programs: old age security, the guaranteed income supplement, and spouse's allowance. The first of these is a demogrant, providing a fixed payment to anyone sixty-five or older regardless of income or need; the latter two provide payments on the basis of a very simple incomes test. Finally, the family allowance is also a demogrant program through which benefits are provided to every family with children under eighteen years of age.

In the periods for which data are available for municipal allowances, the old age programs, and workmen's compensation there were no substantial changes in their design except the introduction of spouse's allowance as an old age program. While all three programs underwent considerable expansion, particularly in average benefits paid and in clientele, the rules of operation were not significantly revised, with the one exception noted above. In contrast, there were very substantial changes in the three remaining programs in the periods under review. Unemployment insurance was considerably liberalized and expanded during the 1971-2 fiscal year, providing, for example, much larger average benefits, new forms of benefits,



and longer durations of eligibility. Provincial allowances were almost completely revised in 1967-8, providing a consolidation of existing programs, general simplification of eligibility, expansion of potential beneficiaries, and a large increase in average payments. Family allowances underwent a similar expansionary reform in 1973-4. These changes were evident in the administrative cost experience of the programs.

#### Data considerations

Because of a lack of information on administrative costs, we have complete series of both administration as a percentage of total costs and administrative costs per case for only one program: workmen's compensation. For provincial allowances both series were restricted to the fiscal years 1960-1 through 1972-3. Reliable unemployment insurance data extended from 1965-6 through 1975-6 for both series. The old age programs and family allowance series were the shortest available, both running from 1971-2 through 1976-7. For municipal allowances we had no useful caseload data, only the series on administration as a percentage of total costs for the fiscal years 1964-5 through 1975-6.

A number of problems in estimating data should be noted. Most important are those associated with the cost of administration. In no program have we attempted to include an estimate of centralized government services which contribute to the program but are not included within government estimates of program cost. For example, in every program certain management functions are performed by deputy ministers' offices, central accounting, and so on. For programs such as unemployment insurance and workmen's compensation with larger administrative costs or a tendency to operate autonomously, these amounts are negligible compared to total costs. But they are probably somewhat larger for provincial and municipal allowances.

While the amount of 'management' performed on behalf of the old age programs and family allowance is probably very small, there is another problem associated with estimating the

administrative costs of these programs: a good deal of their actual operations are through other departments, in particular the Department of Supply and Services. This includes the cost of mailing cheques, which, given the very small administrative costs, is a relatively large proportion of total expenses.

Finally, almost all programs are co-ordinated with parallel programs for the delivery of social services which do not directly relate to the cost of administering the program. In most cases we have been fairly successful in isolating such costs, but it is quite possible that some social service expenses remain within our estimates. This may be particularly problematic in the most recent years of municipal allowances, where it is not possible to tell whether municipalities have included social service costs in administrative accounts for cost-sharing purposes. Provincial allowances, unemployment insurance, and workmen's compensation may also include some social service expenses; however, unlike municipal allowances, the amounts involved are certainly quite small. Neither the old age programs nor family allowances should include any social service costs.

There are also a number of problems associated with administrative cost peculiar to each program; these have been mentioned above. Despite the cumulative effect of these possible errors of estimate, the data on administrative cost appear quite reliable for our purposes. The amount of error is probably consistent over time, so that it will not affect the analysis of change in administrative cost. In fact, perhaps the best evidence on behalf of the estimates of administrative cost is the consistency with which they fit both caseload and transfer data. In general, transfer data appear extremely reliable, as do caseload data, to the extent that they are available.

#### Administration as a percentage of total costs

Table 14 is a summary of the mean, coefficient of variation, and slope for each program series or segment of a series.

TABLE 14: Administrative cost as a percentage of total costs, (current dollars) summary of programs

Program/Years	Mean (%)	Coeff. of var. (%)	T-Value	Slope (%)	Direction
Provincial allowances					
1960-1 - 1972-3	5.5	14.4			
1961-1 - 1966-7	6.7	4.3	0.97	Not significant	None
1967-8 - 1972-3	4.2	6.0	0.68	Not significant	None
Workmen's compensation (Schedules 1 & 2)					
1960 - 76	8.0	9.6	3.3	-0.12	Decreasing
1960 - 5	8.9	6.9	3.1	-0.45	Decreasing
1966 - 74	7.4	6.5	1.6	Not significant	None
1975 and 1976	8.2				
Municipal allowances					
1964-5 - 1975-6	10.3	15.6			
1964-5 - 1971-2	8.9	6.9	1.6	Not significant	None
1972-3 - 1975-6	13.2	4.0	3.1	Not significant	None
Unemployment insurance					
1965-6 - 1975-6	8.9	8.4			
1965-6 - 1971-2	10.4	5.8	10.6	-0.75	Decreasing
1972-3 - 1975-6	6.3	10.8	7.8	-0.88	Decreasing
Old age programs					
1971-2 - 1976-7	0.43	5.3	0.07	Not significant	None
Family allowance					
1971-2 - 1976-7	0.75	16.2			

The mean is the average percentage of administration costs over total costs for the time period stated. The coefficient of variation, measuring the amount of deviation compared to the mean, is calculated by dividing the standard error of the best-fitting line by the mean. The T-value is used to judge whether the slope of the best-fitting line is statistically significant. The slope is the absolute amount of change in the best-fitting line from year to year for the period under consideration. Finally, under the heading 'direction' I have simply recorded whether the trend is towards increasing, decreasing, or no change in percentage costs depending upon whether the slope is positive, negative, or not statistically significant. As stated in chapter 1, where the coefficient of variation is greater than 10 per cent I have generally not regarded the line as a good representation of the actual series. Thus where the variation is greater than 10 per cent I have not recorded the T-value or the slope. I have used 95 per cent as the minimum statistical significance for the slope. In general, I have given the mean and variation for the whole period for each program followed by the results for the segmented parts of that period. Where there are three or less years of observation in a segment I have not stated a coefficient of variation, because it would not be very meaningful.

Two immediately evident facts emerge from these results: first, with the exception of municipal allowances, after 1972-3 costs in the most recent period are all less than 10 per cent; second, none of the trend lines has an increasing slope. While the first observation reflects upon the possibility of cost savings in the over-all bill through reduction of administrative expenses, the latter does not necessarily indicate that the cost of administration has remained proportional to the size of the programs. This question, which must be discussed in the context of administrative costs per case, is addressed below.

A third observation, perhaps somewhat less evident, is that most of the shifts in program trends have been towards a substantial decrease in percentage costs. These shifts are

usually quite readily associated with the history of the program. For example, in 1967-8 provincial allowances were revised by the Family Benefits Act. The large increases in average benefit payments in that Act resulted in a decrease in the mean from 6.7 to 4.2 per cent. Municipal allowances is the only program in which the most recent period has much higher percentage costs. While there was no substantial change in municipal allowances themselves, unemployment insurance was greatly expanded in 1972-3. This resulted in a large decrease in transfers paid through municipalities and, without a concurrent decrease in administrative costs, a large increase in percentage costs. Municipal allowances, the only program which underwent substantial decrease in transfers paid, is therefore the only significant exception to the rule that a shift in trend lines results in lower percentage costs. Although unemployment insurance may be seen as a single trend from 1965-6 through 1975-6, it may also be interpreted as a decreasing trend until 1972-3 followed by a slightly erratic levelling out of costs at around 6.7 per cent. The decrease in the period before 1972-3 may be attributed to very large increases in transfers in those years. While total transfers increased substantially in 1972-3 and again in 1975-6, owing in the first instance to program change and in the latter most probably to high unemployment, administrative cost increases remained on average just a little less than increased transfers in this period. The trend for 1972-3 through 1975-6 has a high amount of variation, primarily because of the extremely large increase in transfers in 1975-6.

Like unemployment insurance, the family allowance program experienced large increases in transfers paid in the period under review. In 1971-2 and 1972-3 average benefits remained at a little more than \$7.00 per child. They were increased on an interim basis in 1973-4 and then almost doubled once again in January 1974. The interim increase was accomplished with little increase in administrative cost, but the 1974-5 program change was accompanied by a large increase in administrative cost. After 1974-5 administrative cost was reduced, but

transfers increased only slightly. If data were available prior to 1971-2 and after 1976-7, the family allowance program would probably show stable or increasing costs at around 1 per cent until 1972-3, a large decrease in the next two fiscal years, and then stable costs around 0.55 per cent for 1975-6 and beyond. However, because no data are available beyond the six years presented, the peculiar configurations of transfer and administrative cost change in these years of transition do not allow any over-all trend to emerge. In contrast, the old age programs underwent very little change in the six years under observation, and the result is a very stable trend with no slope at 0.43 per cent.

Workmen's compensation is the only program in which a shift in trend is difficult to associate with particular events at the time, probably because of the much longer time series involved and the absence of any substantial changes. In the first six years of the series percentage costs fell gradually because of a steady increase in caseload which was absorbed at lower marginal costs. By 1966 marginal administrative costs began to equal average costs, and the trend remained largely stable at 7.4 per cent for the next nine years. There were apparently some difficulties meeting the expectations of the mid-1970s within the cost parameters of the 1960s, perhaps compounded by a very large increase in caseload in 1973 with very little change in the administrative budget. The political result was a legislative task force in 1974. Apparently as a result of the task force report, the administration of workmen's compensation was expanded. Consequently, in the last two years for which data are available administration costs have increased to 8.2 per cent.

#### Administrative cost per case

Table 15 presents an analysis of trends in the administrative costs per case of the income security programs under review in constant 1976-7 dollars. Unfortunately municipal allowances are excluded from this summary since there are no

TABLE 15: Administrative cost per case, (constant 1976-7 dollars) summary of programs

Program/Years	Mean (\$)	Coeff. of var. (%)	T-Value	Slope (%)	Direction
Provincial allowances*					
1960-1 - 1972-3	119.28	13			
1960-1 - 1966-7	100.96	8.3	0.37812	Not significant	None
1967-8 - 1972-3	140.65	5.8	1.50970	Not significant	None
Workmen's compensation (total)+					
1960 - 76	53.18	20.3			
1960 - 5	54.89	5.7	7.01500	-5.21	Decreasing
1966 - 74	47.43	6.7	1.16410	Not significant	None
1975 and 1976	73.87				
Municipal allowances (not available)					
Unemployment insurance+					
1965-6 - 1975-6	66.03	14.6			
1965-6 - 1970-1	54.98	10.2	1.23710	Not significant	None
1972-3 - 1975-6	81.66	5.5	0.82638	Not significant	None
Old age programs*					
1971-2 - 1976-7	9.19	2.2	3.6317	0.17	Increasing
1971-2 - 1975-6	9.06	1.6	2.3793	Not significant	None
1976-7	9.84				
Family allowance*					
Administration/Child					
1971-2 - 1976-7	1.52	11.6			
1971-2 - 1976-7 (less 1974-5)	1.46	4.0	2.97340	0.055	Increasing

\*Cost per average number of cases enrolled

+Cost per average number of new cases enrolled



reliable caseload figures for that program in the period under discussion. As can be seen in the last column of Table 15, in provincial allowances, workmen's compensation, and unemployment insurance the costs per case tended to remain stable or decrease in all periods. Family allowance and the old age programs on the other hand appear to move towards higher costs per case. Another compelling observation is that a shift in trend lines has almost always been towards higher mean costs. In fact, as is discussed below, the apparently increasing trends in family allowance and the old age programs result from what might more accurately be described as a similar shift in trend lines towards higher costs, except that it is somewhat more difficult to demonstrate because of the peculiarities of these series.

Provincial allowances is the series in which a shift towards higher costs per case is most readily evident. Among other reasons, this is because the major change in program design occurred in 1967-8, and the data allow us to analyse a number of years after that. Prior to 1967-8 cost per case remained at a stable \$101 with no trend towards increase or decrease. In 1967-8 the Family Benefits Act was introduced, and cost per case jumped to \$141, where it remained until 1972-3, after which data are unavailable. These costs per case are costs per caseload stock, that is, the cost of the average number of cases enrolled at any given time in the fiscal year. While it is not entirely clear why costs increased after the Family Benefits Act, the increase may be partly attributed to a greater flow of cases and increasing case complexity. It is not known to what extent the increase may also be ascribed to additional demands imposed by the new Act or a decrease in administrative efficiency.

Similarly, unemployment insurance displays a shift in trends towards higher costs per case after the introduction of the new Act in 1971-2. Because of the very high variations in unemployment insurance caseload before 1971-2, it is difficult to derive a coefficient of variation of less than 10 per cent. However, the coefficient of variation for the trend line of

1965-6 through 1970-1 is only slightly higher, at 10.2 per cent, with no significant slope and a mean cost per case of \$55. The trend from 1972-3 through 1975-6 also has no slope, except that costs were \$82. Unlike provincial allowances, these costs per case are costs per caseload flow, that is, the total number of initial and renewal claims submitted in each fiscal year. There is some evidence that the higher costs per case following the new Unemployment Insurance Act may be due to much higher levels of caseload stock. But since there are no reliable historical estimates of caseload stock for unemployment insurance this hypothesis cannot be more thoroughly tested.

The time series for workmen's compensation is longer than that for any other program in this paper, and there have been relatively fewer substantial changes in workmen's compensation than in any other program. Perhaps as a result there is some evidence of economies of scale in this program, whereas similar trends do not appear elsewhere. Thus from 1960 through 1965 costs per case decreased very steadily by a little more than \$5 per case per year, with a mean cost in that period of \$55, apparently because of a steady increase in caseload which was absorbed at lower marginal costs. After 1966, caseload remained stable, and the result was a steady cost per case of about \$47. However, in 1973 caseload increased drastically with little administrative response. Apparently because of administrative difficulties which arose at that time a legislative task force was established, and the administration of workmen's compensation was greatly expanded. Caseload, though, did not continue to increase, and, coupled with the post-task force expansion, this led to higher costs per case in 1975 and 1976 of \$74. Like unemployment insurance, caseload for this program is caseload flow measured according to the total number of claims submitted in each calendar year. There are no estimates, reliable or unreliable, of caseload stock for workmen's compensation, so it is not possible to judge whether any part of the post-1974 increase might be due to change in this variable.

For these three programs there has been a visible pattern in each series: in the absence of program change or, in the case of workmen's compensation, program intervention, costs per case either remain stable or decline; where a program is substantially revised costs per case increase. Both the old age programs and family allowance would appear to be exceptions to this rule since they display increasing costs. As we shall see, the appearance of increasing trends may be explained by upward shifts following program changes, so that these programs may not be exceptions after all.

Taking the whole period of 1971-2 through 1976-7 for which data are available on the old age programs, mean costs per case are \$9.20, and costs increase at 17¢ a year. The only program change in this period was the introduction of spouse's allowance in October 1975. Although very small relative to the other components of the old age programs, this program is much more demanding administratively. If we take the series from 1971-2 through 1975-6, assuming the costs for spouse's allowance would not become fully apparent until 1976-7, we find a trend with no slope and a lower mean cost per case of \$9.06. When the full costs of spouse's allowance appear in 1976-7, the cost per case jumps to \$9.84. Of course the series cannot be extended further into the future, but if it were the result would probably be continuing costs per case of about \$9.80. In other words there was a stable trend in costs per case before 1976-7, a shift upwards in 1976-7, and costs will likely be stable at the higher level after 1976-7.

The family allowance program was revised in 1973-4, with the full costs appearing in 1974-5. The new Act, which came into force in January 1974, provided for a very large increase in average benefits and allowed provincial variation of benefits, though few provinces took advantage of this offer. Given that the net effect of the new Act therefore amounted only to an increase in average benefits, we would expect very little change in costs per case due to it. In the series as a whole from 1971-2 through 1976-7, the mean cost per case is \$1.52, but there is too much variation in the series to derive a

meaningful trend line. However, if we take the same series and exclude 1974-5, the result is a trend with a mean cost of \$1.46 and an increasing slope of about 6¢ per case a year. This slope appears to be due to two factors:

- a small, coincidental decrease in the caseload in the first three years of the period resulted in a small steady increase in cost per case in these three years;

- the higher costs of 1974-5 had not been entirely eliminated by 1975-6.

If this interpretation is correct and we could extend the series backwards in time, we would expect a stable trend with no slope up to 1974-5. If we could extend the series into the future we would expect a continuation of the pre-1974 trend, or a very slight shift towards a higher trend as a result of the program change.

## Conclusion

In general, administrative costs both per case and as a percentage of total costs have either remained constant or decreased in the absence of program change. The effect of a program change was to increase costs per case but to decrease costs as a percentage of total costs. The latter result was largely due to substantial increases in average benefits as part of the revision of the program. The former effect was often accompanied by increases in caseload stock or flow, whichever is the alternate caseload variable for the particular program, although it is not known whether this increase was caused by or merely coincidental with the program change.

The major exception to this result is municipal allowances, in which the ratio of administrative cost to total costs increased after 1972-3. Unlike any other program in the time periods reviewed here, municipal allowances decreased in size after 1972-3 because of the expansion of unemployment insurance. Thus the effect of a decrease in program size appears to be an increase in percentage costs, precisely the opposite effect of a program expansion.

## COST-SAVING POTENTIAL

Perhaps the most surprising result of our study is the very low percentage cost of administration. For the largely demogrant programs we have found that Administration is much less than 1 per cent of total costs, and even for the fairly complex 'insurance' programs administrative costs have been about 8 per cent of total costs. Needs-tested provincial allowances are now less than 5 per cent. Only municipal allowances show a relatively large cost: over 13 per cent in the most recent years. It should be noted that even if administration costs were underestimated by as much as 20 per cent, these results would not change by more than 1 or 2 percentage points. Thus there appears to be little scope for reducing the total budgets of income security programs through reducing administrative expenses.

Unlike many other public programs, expenditures by government on transfer payments do not represent an appropriation by government of a portion of goods and services produced. In making a transfer payment, government operates as an intermediary transferring money between persons. As such, transfers paid by governments do not represent a cost in the same way as does, for example, national defence or the health system. However, the administrative expense incurred in making those transfers does represent a real cost. Since additional goods or services are not produced through transfer payments, the administrative costs of income security programs may then be considered a particularly wasteful use of resources. It may therefore be quite misleading to compare the cost of administration to the total cost including transfers paid; savings in the former result in real reductions of unproductive expenditures, while savings in transfers, without taking into account the role of incentives, do not free any new resources to be used in other ways.

If so, we should be much more interested in the absolute costs of administration rather than in percentage costs when compared to total costs. These absolute costs are obviously

large. In 1972-3 total administrative costs for the three provincial programs reviewed here were more than \$45 million in 1976-7 dollars. Total administrative costs for the federal programs in 1972-3 were about \$220 million in 1976-7 dollars. Unfortunately these expenses seem for the most part to be a necessary feature of income security programs as currently designed and on the scale in which they currently operate. Although with the difficulty of isolating 'efficiency' our evidence is not conclusive on this point, the possibility of explaining almost all variation in costs per case by the case-load variables indicates there is relatively little 'flab' in the administrative budgets of income security programs. Therefore, in the existing range of programs there is little scope for reducing even absolute administrative costs.

In general, both transfer payments and their associated administrative expense have been popularly treated as just one more expense of government. Viewing expenditures in this manner, the total dollars paid for income security programs by government (or, as in the case of workmen's compensation, the total payment regulated through government) can never be significantly reduced merely through saving administrative expenses. They are simply too small a portion of total costs and in any event do not appear to have much flexibility. However, if we consider the possibility of program change, some administrative cost saving may be possible. If we distinguish between types of dollars paid by government, recognizing transfers as in some sense 'non-expenditures' and administrative costs as waste, then the tradeoff between transfers and their associated administrative costs is quite different. We might then be willing to consider new programs which imply large increases in transfers paid in return for small decreases in administrative expense. In this regard the small costs per case of the old age and family allowance programs appear much more encouraging. While it is very unlikely that a guaranteed income plan or similar reform of income security programs could generate enough administrative savings to offset increases in transfers paid, it might result in lower administrative costs in absolute



dollars. That would be a real saving in otherwise wasted resources.

Aside from this somewhat theoretical possibility, a more pedestrian result may be worth further investigation. While our conclusions have not been definitive on this point, there appear to be significant economies of scale in the administration of income security programs. These were evident in the case of workmen's compensation and appeared important in some of the year-to-year variation of costs per case in other programs. Without further investigation it is not possible to judge the extent to which economies of scale are present in all programs, but it appears logical to assume that they exist. If they do there might be some possibility of cost saving through centralizing currently decentralized programs, specifically municipal allowances. Of course this involves a redistribution of responsibilities between levels of government, and there may be factors other than administrative cost saving to take into account. Similarly, there may be cost-saving potential in the interprovincial consolidation of some provincial programs, particularly between the smaller provinces. These possibilities warrant further research.

While analysing the programs we were constantly tempted to compare them. That temptation was resisted because, as mentioned in the introduction, the measurements used are not generally comparable. For example, the costs per case of provincial allowances are of caseload stock, while those of workmen's compensation are of caseload flow. That the former is double the latter means little. To choose an analogy from health care, this would be like attempting to compare cost per patient to the cost per patient-day. Moreover, provincial allowances and workmen's compensation are designed for different objectives, and without some way to equalize for these design differences no comparison would be valid even if the caseload measurements were the same. This would be like comparing costs per patient-day in a general treatment hospital to those in a hospital which treats only cancer victims. Finally, the administrative costs of workmen's compensation include



certain tasks whose costs are not included within provincial allowances. Most important, workmen's compensation collects its own funding through a complex rating system, no doubt a costly process, while provincial allowances draws from general revenue at virtually no cost.

If we attempt to compare programs using percentage costs rather than costs per case, such problems are compounded. Percentage costs are highly dependent upon the amount of average benefits paid, and from the viewpoint of administrative cost average benefits are not very relevant. Nevertheless, it may still be possible to make some comparisons, even if only very tentatively.

The family allowance program is the only pure demogrant analysed. Its administrative cost per child is about \$1.50. Since its regulations are as simplified as possible, there is a relatively small flow of cases, and the program is large enough to have exhausted any economies of scale, this might be seen as a 'floor' price for caseload stock of any income security program. If we add an estimated 50¢ a child for services provided by other departments, the floor price is about \$2.00 per caseload stock. The current total national cost of administration of all income security programs is roughly \$500 million. Replacing all existing programs with a single demogrant providing fixed monthly payments to every man, woman, and child would cost about \$50 million for administration, a reduction of \$450 million. This is about 1 per cent of total government spending on goods and services. This is not to recommend such a program, because we have not taken account of the many other possible consequences, but it does allow at least some judgment about the total administrative costs implied in operating a variety of selective income security programs.

If the administrative cost per case of old age security is similar to that of family allowance, the cost per case of the Guaranteed Income Supplement is about \$15.00 a year including costs of services supplied by other departments. Assuming everything else equal, if a very simple income-tested program

such as GIS were extended nationally to everyone the total administrative cost might be in the range of \$300 million, a reduction, therefore, of \$200 million. Of course, the greater degree of fluctuation in income and family structure of the general population, compared with that among the elderly, would imply higher costs. In other words operating our current system of specialized needs-tested and insurance-type programs is costing no more than \$200 million nationally over the cost of a unified simplified income-tested system.

These numbers are obviously only very rough estimates and must be treated as such. They do, though, provide some parameters within which we may judge the total administrative costs of various degrees of selectivity within income security programs.

#### BUDGETING, PLANNING, AND PUBLIC INFORMATION

Historically, data on income security programs have been compiled for accounting purposes. In some programs, such as workmen's compensation, this information has been provided consistently and to very high standards. In other programs, such as provincial allowances, data have been much less readily available. Information of an accounting nature should certainly be expanded and improved generally. Data on costs will not, however, be of much value unless expenditures can be related to measures of program output, the most elementary measures of which are the caseload variables. At the very least, meaningful data on the caseload stock and flow of every income security program should be available. These figures must be based on some averaging over a fiscal year and not, as has been done in the past, simply a record of the number of cases at the end of each fiscal year. Caseload figures ought to be available in sufficient detail to provide some assessment of the changing nature of caseload. Finally, costs and program output should not be left in two separate, unrelated formats. Costs cannot be meaningfully assessed unless they are compared to program output.

In the last few years information collection in income security programs has been noticeably improving along the lines suggested above. This is largely due to the introduction of more modern budgeting and planning techniques such as PPBS and Management by Objectives, both of which demand data on program outputs. This trend is particularly noted in the federal government, the provincial government apparently being slower in adopting these approaches. The provincial government cannot take full advantage of improved administrative techniques without the expanded information management systems upon which such techniques are based.

There is some sense of urgency in these reforms since important consequences of program change often cannot be discerned without lengthy historical data. We have seen this in the effects upon municipal allowances of the expansion of unemployment insurance. If detailed data on municipal allowances had been available, it might now be possible to predict with some accuracy the effects of the most recent revisions of unemployment insurance. In a larger context, aside from the interrelationship of programs, it will remain very difficult to predict the consequences of any program revision until more detailed program information is available. Since the public budget is largely a problem of balancing the priority of various policies against their costs, accurate cost predictions are of prime importance in rationalizing the budget process.

One of the major problems encountered in the attempt to introduce techniques such as PPBS and Management by Objectives in the area of income security, and in public programs generally, has been the difficulty in specifying the objectives of each program. The objectives of administration of programs, however, may perhaps be stated much more readily. For the most part, the administrative objectives should be to deliver a program to certain standards at least cost. If administrative costs are recorded separately from program costs, which should not be too difficult a task for income security, and if the size of administration is related to program size, then more sophisticated management techniques could be applied to income

security programs. In turn, the availability of reliable administrative measurements may allow more flexible budgeting. A quicker response to unanticipated changes in workload may allow greater savings when workload decreases and prevent administrative problems when it increases.

Some of the information systems described above may already exist but not be publicly available. If the public is to judge the efficacy of the programs for which it pays, the first step is to ensure that the necessary information is not kept secret. Annual reports are the traditional means through which government programs provide information both to legislative assemblies and to the public in general. In compiling this paper I reviewed dozens of annual reports. A regrettable trend developed in the early 1970s towards glossy reports full of pictures but increasingly empty of content. It would not appear unreasonable to demand some minimum standards of annual reports. These might include an account of all program changes, both legislative and administrative, and comprehensive statistical sections relating program output to administrative and other costs. The traditional device of annual reports might then serve an improved role in increasing the public accountability of government.



# Appendix

## PRIMARY DATA

Topic	Table
Provincial allowances (Ontario)	
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Number of employees	A24
Transfers paid	A25
Caseload data	A26

NOTE: All dollars are current dollars.

TABLE A1: Provincial allowances, administration costs, Ontario  
(\$)

Fiscal year	Family Benefits/ Welfare allowance		Field services	Total
1960-1	618,339	1,150,958		1,769,297
1961-2	674,218	1,281,108		1,955,326
1962-3	676,099	1,338,730		2,014,829
1963-4	820,032	1,408,269		2,228,301
1964-5	904,137	1,447,042		2,351,179
1965-6	975,033	1,609,034		2,584,067
1966-7	1,198,610	2,017,730		3,216,340
1967-8	1,688,665	2,681,068		4,369,733
1968-9	1,720,002	2,865,388		4,585,390
1969-70	1,817,006	3,095,289		4,912,295
1970-1	2,238,999	3,658,189		5,897,188
1971-2	2,301,344	3,949,053		6,250,397
1972-3	2,627,025	4,500,712		7,127,737

SOURCE: *Annual Reports*, Ministry of Community and Social Services, Ontario  
*Statistical Supplement to the Annual Report*, Policy Analysis and Financial Planning Branch, Ministry of Community and Social Services, Ontario  
*Public Accounts*, Government of Ontario



TABLE A2: Provincial allowances, transfers paid, Ontario (\$)

Fiscal year	Medical for blind	Dental	Medical	Mother's allowance	Family benefits	Old age assistance	Blind allowance	Disabled allowance	Thalidomide	Total
1960-1	5,388	183,199	2,112,658	12,877,725		6,616,367	278,935	4,139,787	-	26,214,059
1961-2	4,447	186,811	2,008,040	13,650,401		6,912,430	278,115	4,475,269	-	27,515,510
1962-3	9,628	175,018	1,897,365	12,870,362		8,464,476	328,255	5,503,039	-	29,248,140
1963-4	7,933	144,606	1,736,330	11,130,249		9,144,731	344,541	6,148,459	10,015	28,666,864
1964-5	6,877	154,622	1,778,308	12,230,027		10,472,911	388,440	7,333,013	11,654	32,375,850
1965-6	8,849	292,000	2,058,322	16,227,136		9,999,905	387,720	7,771,636	10,168	36,746,736
1966-7	-	385,122	8,849,513	19,273,859		7,244,143	357,085	8,322,708	6,087	44,438,517
1967-8	-	724,090	14,175,216	-	79,379,103	2,804,362	355,941	2,269,719	13,510	99,721,941
1968-9	-	993,000	18,384,712	-	92,181,128	355,665	249,252	1,446,908	12,681	113,523,346
1969-70	-	1,477,340	13,036,000	-	99,045,925	4,011	190,692	917,983	12,467	114,684,418
1970-1	-	1,888,619	-	-	119,904,893	-	116,337	489,717	13,125	122,412,691
1971-2	-	2,391,951	-	-	142,882,809	-	105,824	332,574	14,350	145,727,508
1972-3	-	2,571,297	-	-	158,032,180	-	55,117	233,084	16,260	160,907,938

SOURCE: Annual Reports, Ministry of Community and Social Services, Ontario  
 Statistical Supplement to the Annual Report, Policy Analysis and Financial Planning Branch, Ministry of Community and Social Services, Ontario.  
 Public Accounts, Government of Ontario.

TABLE A3: Provincial allowances, caseload data, Ontario

Fiscal year	Average monthly number of recipients	Number of applications processed
1960-1	46,940	16,907
1961-2	48,413	16,475
1962-3	50,041*	18,927
1963-4	55,112+	27,066
1964-5	63,753	24,898
1965-6	66,475	23,729
1966-7	63,833	21,722
1967-8	61,793	28,744†
1968-9	63,433	26,071
1969-70	63,905	24,058
1970-1	66,918	27,493
1971-2	76,271	26,065
1972-3	81,966	34,244

\* Includes 12 month average of 693 dependent father's; allowance expenditures are included under General Welfare Assistance (same as all subsequent figures).

+ Includes 12 month average of 3,134 widows and unmarried women, new program begun in June 1963.

† Figures previous to 1967-68 include applications carried over from previous year, 1967-68 and subsequent figures include only applications received in that fiscal year. The amounts involved are quite small.

SOURCE: *Statistical Supplement to the Annual Report, Ministry of Community and Social Services*  
*Annual Reports, Ministry of Community and Social Services*

TABLE A4: Provincial allowances, labour and non-labour costs,  
Ontario

Fiscal	Labour*	Percentage of	Non-labour+	Percentage of
	cost (\$)	total	cost (\$)	Total
1960-1	1,480,614	83.68	288,683	16.32
1961-2	1,664,786	85.14	290,540	14.86
1962-3	1,728,677	85.80	286,152	14.20
1963-4	1,866,100	83.75	362,201	16.25
1964-5	1,990,983	84.68	360,196	15.32
1965-6	2,157,834	83.51	426,233	16.49
1966-7	2,704,395	84.08	511,945	15.92
1967-8	3,569,474	81.69	800,259	18.31
1968-9	3,913,695	85.35	671,695	14.65
1969-70	4,291,347	87.36	620,948	12.64
1970-1	5,141,707	87.19	755,481	12.81
1971-2	5,225,218	83.60	1,025,179	16.40
1972-3	6,094,757	85.51	1,032,980	14.49

\* Salaries (family benefits branch and field services branch).

+ Total administration costs minus labour costs.

SOURCE: *Public accounts*, Government of Ontario  
*Annual report*, Ministry of Community and Social Services, Ontario  
*Statistical Supplement to the Annual Report*, Ministry of Community and Social Services, Ontario

TABLE A5: Workmen's compensation, administration costs, Ontario (\$)

Calendar year	Admin. costs under schedule 1	Total reported admin. costs	Social services reported as admin.	Admin. costs net of social services
1960	5,134,767	6,096,775	429,956	5,666,819
1961	5,280,229	6,272,161	442,960	5,829,201
1962	5,353,552	6,408,590	457,783	5,950,807
1963	5,461,045	6,563,482	488,117	6,075,365
1964	6,058,958	7,150,815	457,666	6,693,149
1965	5,468,051	6,988,237	868,389	6,119,848
1966	6,885,478	8,995,550	1,359,403	7,636,147
1967	7,095,467	9,280,310	1,157,237	8,123,073*(est)
1968	7,534,371	10,011,167	1,172,589	8,838,578*(est)
1969	8,411,011	10,997,772	749,165	10,248,607*(est)
1970	8,796,993	11,781,039	1,303,139	10,477,900*(est)
1971	9,672,583	12,777,292	1,444,778	11,332,514*(est)
1972	10,341,783	13,800,256	1,241,628	12,558,622*(est)
1973	11,051,000	14,867,000	2,433,000	12,434,000
1974	15,816,000	21,228,000	3,333,000	17,895,000
1975	23,262,000	30,582,000	4,599,000	25,983,000
1976	27,437,000	36,727,000	5,292,000	31,435,000

\* Costs may be slightly inflated. Figure is derived by adding Schedule 2 administrative costs to Schedule 1 costs. In these years the only account of Schedule 2 costs is as a portion of the assets of the WCB rather than as a separate notation as in other years. The amount added is described as "administrative expenses and other balances recoverable from Schedule 2 employers".

SOURCE: Workmen's Compensation Board, *Annual Reports*

TABLE A6: Workmen's compensation, number of employees, Ontario

Calendar year	Number at head office and district offices
1960	903
1961	895
1962	887
1963	893
1964	931
1965	1,006
1966	1,054
1967	1,079
1968	1,057
1969	1,045
1970	1,037
1971	1,033
1972	1,037
1973	1,103
1974	1,306
1975	1,501
1976	1,563

NOTE: Excludes staff at Rehabilitation Centre, safety associations, and chest examining units

SOURCE: Workmen's compensation Board, *Annual Reports*

TABLE A7: Workmen's compensation, transfers paid, Ontario (\$)

Year	Schedule 1 benefits	Schedule 2 benefits	Total benefits
1960	47,863,237	5,545,178	53,381,415
1961	49,966,507	5,576,035	55,735,542
1962	50,741,898	6,136,540	56,886,438
1963	54,149,719	6,110,995	60,260,714
1964	62,739,572	7,134,330	69,873,902
1965	74,338,708	7,792,127	82,130,835
1966	86,485,924	9,632,038	96,117,962
1967	87,939,124	9,201,437	97,140,561
1968	93,620,666	10,228,056	103,848,722
1969	104,685,074	12,258,646	116,943,720
1970	117,730,063	13,582,567	131,312,630
1971	122,485,027	14,690,850	137,175,877
1972	144,493,000	17,123,000	161,616,000
1973	168,383,191	19,376,150	187,759,341
1974	200,060,000	22,470,000	222,530,000
1975	255,920,000	28,766,000	284,686,000
1976	325,278,000	34,593,000	359,871,000

NOTE: Total benefits are the sum of Schedule 1 and Schedule 2 benefits exclusive of the legislative increases awarded as the Workmen's Compensation Act is amended. These are recorded as presented in the "Summary of Operations".

SOURCE: Workmen's Compensation Board, *Annual Reports*

TABLE A8: Workmen's compensation, caseload data A (claims settled in calendar year), Ontario

Calendar year	Schedule 1 claims settled	Schedule 1, 2, and other claims (total) settled
1960	216,685	240,469
1961	213,592	239,890
1962	223,812	250,192
1963*	236,228 (est)	262,787 (est)
1964	262,372	293,126
1965	298,135	331,405
1966	320,180	354,296
1967	317,374	352,232
1968	306,024	350,594
1969	317,586	354,249
1970	311,474	348,324
1971	294,916	333,864
1972	305,349	347,816
1973	334,625	376,177
1974+	356,959 (est)	403,343 (est)
1975+	317,479 (est)	359,139 (est)
1976+	346,655 (est)	392,588 (est)

\* After 30 Sept. 1963 claims were not recorded as settled until they had remained inactive for three months. Thus the number of claims recorded as settled in earlier years will be somewhat inflated. Since the switchover occurred in 1963, there are three months of settlements missing in actual data: 177, 171 in Schedule 1 and 197,090 total. The estimate was arrived at simply by multiplying by 12/9. This is not an estimate of actual settlements, since these additional claims did not exist, but only an inflation of the actual amount to preserve the continuity of the series.

+ It was found that for the ten years 1963-73 claims submitted were an almost constant percentage of claims settled. A trend analysis of these percentages was done for the ten years and projected for 1974-6 to obtain estimates of total claims settled. Schedule 1 claims settled were also found to be a fairly constant percentage of total claims settled. The trend of these percentages was used to extend the Schedule 1 claims settled series for 1974-6.

SOURCE: Workmen's Compensation Board, Division of Administrative Resources, unpublished data



TABLE A9: Workmen's compensation, caseload data B (claims submitted in calendar year), Ontario

Calendar year	Schedule 1 claims submitted (estimated)	Schedule 1, 2, and other claims (total) submitted
1960	203,591	225,961
1961	225,320	253,169
1962	240,965	269,536
1963	257,678	286,627
1964	284,900	318,331
1965	323,418	359,353
1966	337,693	373,554
1967	337,578	374,670
1968	331,066	379,228
1969	347,143	387,004
1970	333,581	373,133
1971	323,911	366,830
1972	330,977	376,967
1973	372,410	418,438
1974	392,262	443,234
1975	349,647	395,528
1976	383,045	433,799

NOTE: It is assumed that the proportion of Schedule 1 claims settled to total claims settled will be close to the proportion of Schedule 1 claims submitted to total claims submitted. For the years 1960 through 1973 I simply applied the former proportion to total claims submitted to arrive at an estimate of Schedule 1 claims submitted for each year. For the years 1974-6 I used projected ratios, as described in the second note to Table A8, to arrive at claims submitted. While there may be some small distortion due to a time lag, this effect should average out over the length of the series. Furthermore, given the negligible deviation, there is almost no sensitivity to a time lag of three or four months.

SOURCE: Workmen's Compensation Board, *Annual Reports*

TABLE A10: Workmen's compensation, labour and non-labour costs,  
Ontario

Fiscal year	Labour cost (\$)	Percentage of total	Non-labour cost (\$)	Percentage of total
1960	4,643,813	78.87	1,330,674	21.13
1961	4,832,597	78.36	1,334,143	21.64
1962	4,962,301	78.29	1,376,330	21.71
1963	5,139,945	78.80	1,382,570	21.20
1964	5,604,595	79.08	1,482,846	20.92
1965	5,166,117	73.93	1,822,120	26.07
1966	7,042,192	78.29	1,953,358	21.71
1967	7,231,263	77.92	2,049,047	22.08
1968	7,625,752	76.17	2,385,415	23.83
1969	8,451,570	76.85	2,546,202	23.15
1970	9,160,251	77.75	2,620,788	22.25
1971	9,875,814	77.29	2,901,478	22.71
1972	10,811,880	78.35	2,988,376	21.65
1973	12,033,349	80.94	2,833,651	19.06
1974	16,554,000	77.98	4,674,000	22.02
1975	22,479,000	73.50	8,103,000	26.50
1976	27,052,000	73.66	9,675,000	26.34

NOTE: Labour cost is 'Salaries and employee benefits of the Board and staff' including 'special contributions to the staff superannuation fund'. Non-labour cost is total administrative costs, excluding 'special services', minus labour costs.

SOURCE: Workmen's Compensation Board, *Annual Reports*

TABLE All: Municipal allowances, administration costs, Ontario  
(\$)

Fiscal year	1964 base year costs*	Direct provincial costs†	Gross municipal costs net base year†	Total costs
1964-5	3,367,236	131,532		3,498,768
1965-6	3,355,378	159,872	31,642	3,546,892
1966-7	3,348,459	209,175	172,312	3,729,946
1967-8	3,328,639	232,963	299,560	3,861,162
1968-9	3,294,378	375,406	3,113,416	6,783,200
1969-70	3,266,675	315,690	4,085,378	7,667,743
1970-1	3,188,647	377,969	6,400,912	9,967,528
1971-2	3,159,651	490,052	9,313,041	12,962,744
1972-3	3,154,040	576,004	12,641,780	16,371,824
1973-4	3,073,023	510,118	13,378,677	16,961,818
1974-5	2,808,211	477,035	16,652,858	19,938,104
1975-6	2,263,629	549,018	24,825,190	27,637,837

\* The month the municipalities convert to full cost-sharing system is included in base year costs.

+ Costs incurred by the Province by administrating the transfer of funds to the municipalities.

† Provincially subsidized municipal administration costs.

SOURCE: *Statistical Supplement to the Annual Report, Ministry of Community and Social Services, Ontario Expenditures by Municipality (County), Ministry of Community and Social Services, Ontario.*  
Cost of administration of municipal welfare services, General Welfare Assistance Act, 1964 base year costs, Ministry of Community and Social Services, Ontario.  
Unpublished data

TABLE A12: Municipal allowances, transfers paid, Ontario (\$)

Fiscal year	Total allowances paid out
1960-1	
1961-2	
1962-3	
1963-4	
1964-5	33,880,438
1965-6	34,013,490
1966-7	37,632,218
1967-8	44,380,857
1968-9	66,772,330
1969-70	71,825,805
1970-1	109,751,271
1971-2	150,580,375
1972-3	117,167,009
1973-4	112,680,469
1974-5	133,628,518
1975-6	160,067,431

SOURCE: *Expenditure by Municipality (County)*, Ministry of Community and Social Services, Ontario

TABLE A13: Municipal allowances, caseload, Ontario

Fiscal year	Caseload for month of March (end of fiscal period)
1960-1	32,031
1961-2	35,905
1962-3	38,118
1963-4	34,818
1964-5	33,901
1965-6	33,014
1966-7	34,020
1967-8	44,228
1968-9	42,230
1969-70	58,513
1970-1	88,735
1971-2	89,140
1972-3	68,110
1973-4	65,283
1974-5	68,251
1975-6	66,173

SOURCE: *Annual Report*, Ministry of Community and Social Services, Ontario  
*Statistical Supplement to the Annual Report*, Ministry of Community and Social Services, Ontario

TABLE A14: Unemployment insurance, administration costs,  
Canada (\$ millions)

Fiscal year	Administration costs
1960-1*	30.3
1961-2	33.1
1962-3	34.6
1963-4	35.1
1964-5+	45.5
1965-6	45.6
1966-7	44.9
1967-8	47.0
1968-9	48.0
1969-70	55.5
1970-1	76.4
1971-2	101.9
1972-3	130.4
1973-4	142.8
1974-5†	170.0
1975-6	195.1

\* From the 1960-1 *Annual Report*, and other figures from Statistics Canada.

+ Prior to 1965-6 the administration costs of the Commission included those allotted to the National Employment Services, which, to 31 March 1965, was administered by the Commission. In order to provide fair comparison with the remaining years, administrative costs relating to the National Employment Service have been eliminated from the first five years on an estimated basis. (Referring to the Commission report in the 1965-6 *Public Accounts*, an estimate of 28 per cent of total costs was attributed to the National Employment Service. The same estimate has been used to revise the four earlier years' cost figures.)

† 1974-5 and 1975-6 figures based upon *Public Accounts* reports of calendar year administrative costs for unemployment insurance. Estimates derived by taking 0.75 and 0.25 of 1974 and 1975 respectively and of 1975 and 1976 respectively.

NOTE: Total administration costs of the Unemployment Insurance Commission excluding those attributed to the National Employment Service in earlier years, and excluding amounts recoverable from the Canada Pension Plan account. Services by other departments are included.

SOURCE: *Social Security, National Programs*, Statistics Canada catalogue 86-201, Annual  
*Public Accounts, Canada*, Vol.2, Information Canada, Annual  
*Annual Report, Unemployment Insurance Commission*

TABLE A15: Unemployment insurance, number of UIC employees  
(man-years) 1960-77, Canada

Fiscal year	Employment estimates
1960-1*	6,219
1961-2	6,621
1962-3	6,859
1963-4+	6,885
1964-5	7,224
1965-6	6,988
1966-7	6,964
1967-8	6,964
1968-9	6,520
1969-70	5,685
1970-1	6,468
1971-2	6,022
1972-3	10,742
1973-4	12,000
1974-5	11,269
1975-6	11,460
1976-7	11,959

\* This figure is the number of employees rather than man-years, with little difference expected.

+ Before 1964-5 the employment estimates for the Commission included those allotted to the National Employment Service, which, to 31 March 1965 was administered by the Commission. In order to provide fair comparisons with employment estimates for the remaining years, authorized man-years relating to the National Employment Service have been eliminated from the first four years on an estimated basis. (The estimates were arrived at by taking the sum of the National Employment Service and UIC for each of the two fiscal years 1965-6 and 1964-5 and dividing this into the National Employment Service estimate. The resulting average ratio for the two years (0.37) was the instrument for the estimation procedure.)

NOTE: Authorized man-years allotted to UIC including supplementary revisions (Man-year estimates are used because of the lack of a comprehensive data series on employment including casual labour for the specified time period.)

SOURCE: Canada, *Estimates*, Information Canada, Annual

TABLE A16: Unemployment insurance, transfers paid, Canada  
(\$ millions)

Fiscal year	Regular benefits	Other benefits	Total benefits
1960-1	502.0	11.9	513.9
1961-2	443.2	11.5	454.7
1962-3	392.3	10.9	403.2
1963-4	354.2	11.4	365.6
1964-5	323.3	11.7	335.0
1965-6	287.6	10.2	297.8
1966-7	296.2	10.8	307.0
1967-8	375.1	13.5	388.6
1968-9	443.1	16.0	459.1
1969-70	524.3	17.8	542.1
1970-1	783.7	--*	783.7
1971-2	1,131.2	16.2	1,147.4
1972-3	1,880.3	140.3	2,020.6
1973-4	1,837.2	178.8	2,016.0
1974-5	2,117.1	204.1	2,321.2
1975-6	3,075.9	257.4	3,333.3

\* Included in regular benefits

NOTE: Regular benefits include agriculture for all years except 1967-8, 1968-9, and 1969-70.

SOURCE: *Social Security, National Programs*, Statistics Canada Catalogue 86-201, Annual Statistical Report on the Operation of the UIC, Statistics Canada, Catalogue 73-001



TABLE A17: Unemployment insurance, caseload data, Canada

Fiscal year	Initial and renewal claims received (annual total)	Claimants (average monthly)	Caseload stock (estimate)
1960-1	2,708,000	529,670	304,003
1961-2	2,375,000	449,580	251,913
1962-3	2,144,000	414,170	235,253
1963-4	1,947,000	376,000	213,750
1964-5	1,820,000	343,750	192,083
1965-6	1,589,000	313,250	180,833
1966-7	1,620,000	319,330	184,330
1967-8	1,889,000	394,170	236,753
1968-9	1,846,000	407,580	253,747
1969-70	1,929,000	428,330	267,580
1970-1	2,307,000	584,750	392,500
1971-2	2,319,000	608,670	415,420
1972-3	2,387,000	842,330	643,413
1973-4	2,263,000	816,670	628,087
1974-5	2,570,000	877,330	663,163
1975-6	2,758,000	1,047,300	817,467
1976-7	2,688,000	947,220*	723,387

\* Nine-month average since data available only to December 1976

NOTE: Claimants are the number of persons who applied for or who received benefits in each month, averaged over the twelve months. The ideal measure of caseload stock is the average number of persons receiving benefits at any one time in the fiscal year. The series given here is derived by subtracting the average number of claims received per month from the average monthly number of claimants. This results in an overestimation of stock. The size of the overestimation cannot be precisely determined since data on beneficiaries has only recently become available. For the months in which information on beneficiaries is available, beneficiaries range from a low of 82 per cent to a high of 99 per cent of our stock estimates, averaging 88 per cent. These stock estimates are therefore of only limited usefulness.

SOURCE: *Statistical Report on the Operation of the UIC*, Statistics Canada, Catalogue 73-001

TABLE 18: Unemployment insurance, labour and non-labour costs,  
Canada (\$)

Year	Labour costs	Percentage of total	Non-labour costs	Percentage of total
1965-6	27,101,657	69.51	11,886,105	30.49
1966-7	31,565,933	70.34	13,310,163	29.66
1967-8	31,849,812	67.71	15,190,020	32.29
1968-9	31,600,529	65.87	16,376,355	34.13
1970	41,630,920	75.09	13,813,231	24.91
1971	47,621,453	73.14	17,481,591	26.86
1972	-	-	-	-
1973	99,167,499	80.56	23,932,501	19.44
1974	114,773,349	69.98	49,236,228	30.02
1975	132,971,082	68.84	60,190,980	31.16
1976	150,530,322	71.92	58,762,200	28.06

NOTE: The first four periods indicated are fiscal years, while the remaining are calendar years. Labour costs are salaries, wages, and allowances plus contributions to pension plans, etc. However, this category did not exist until 1970 and is assumed accounted for by the figures provided. Non-labour costs are total administration costs minus labour costs

SOURCE: *Annual Report, Unemployment Insurance Commission of Canada*  
*Public Accounts, Canada*

TABLE A19: Old age programs, administration costs, Canada (\$)

Fiscal year	Labour costs	Percentage		Percentage	
		of total	Non-labour costs	of total	Total costs
1971-2	7,538,292	77.44	2,196,483	22.56	9,734,775
1972-3	8,392,754	75.19	2,768,706	24.81	11,161,460
1973-4	8,731,430	73.02	3,225,348	26.98	11,956,778
1974-5	10,622,060	73.89	3,754,281	26.11	14,376,341
1975-6	12,428,191	74.93	4,158,589	25.07	16,586,780
1976-7	15,505,659	78.25	4,310,640	21.75	19,816,229

NOTE: Includes old age security, guaranteed income supplement, and spouse's allowance. The source data provide aggregated costs for both family allowance and old age programs. The information was disaggregated using the proportion of utilized man-years in one program compared to that for both programs. Labour costs include only salaries

SOURCE: 'Family allowance and old age security operating expenditures and utilized man-years', Management Services Division, Income Security Programs Branch, Health and Welfare Canada. Unpublished data

TABLE A20: Old age programs, number of employees, Canada

Fiscal year	Utilized years
1971-2	1,133
1972-3	1,158
1973-4	1,130
1974-5	1,116
1975-6	1,276
1976-7	1,313

NOTE: Includes old age security, guaranteed income supplement, and spouse's allowance

SOURCE: 'Family allowance and old age security operating expenditures and utilized man-years', Management Services Division, Income Security Programs Branch, Health and Welfare Canada. Unpublished data

TABLE A21: Old age programs, transfers paid, Canada (\$000)

Fiscal year	Total payments
1960-1	592,413
1961-2	625,108
1962-3	734,382
1963-4	808,391
1964-5	885,294
1965-6	927,299
1966-7	1,073,005
1967-8	1,388,119
1968-9	1,541,319
1969-70	1,730,536
1970-1	1,907,224
1971-2	2,205,355
1972-3	2,524,345
1973-4	3,034,492
1974-5	3,447,165
1975-6	3,932,945
1976-7	4,436,672

NOTE: Includes old age security, guaranteed income supplement, and spouse's allowance. Transfers paid are total net payments.

SOURCE: *Social Security, National programs*, Statistics Canada, catalogue 86-201, Annual  
Ottawa, National Health and Welfare, Income Security Branch, Operational Planning and Program Evaluation Division

TABLE A22: Old age programs, caseload data, Canada

Fiscal year	Number of recipients
1960-1	904,906
1961-2	927,590
1962-3	950,766
1963-4	971,801
1964-5	993,582
1965-6	1,105,776
1966-7	1,229,561
1967-8	1,366,210
1968-9	1,504,862
1969-70	1,670,639
1970-1	1,720,128
1971-2	1,762,834
1972-3	1,808,233
1973-4	1,858,481
1974-5	1,915,679
1975-6	1,957,288
1976-7	2,014,301

NOTE: Includes old age security, guaranteed income supplement, and spouse's allowance. Number of recipients as of March of each fiscal year receiving old age security, income supplement, and/or spouse's allowance

SOURCE: *Social Security, National programs*, Statistics Canada, catalogue 86-201, Annual  
Ottawa, National Health and Welfare, Income Security Branch, Operational Planning and Program Evaluation Division

TABLE A23: Family Allowance, administration costs, Canada (\$)

Fiscal year	Labour costs	Percentage		Percentage	
		of total	Non-labour costs	of total	Total costs
1971-2	4,823,709	77.44	1,405,517	22.56	6,229,225
1972-3	5,363,246	75.19	1,769,294	24.81	7,132,540
1973-4	5,586,570	73.02	2,063,652	26.98	7,650,223
1974-5	8,175,940	73.89	2,889,719	26.11	11,065,660
1975-6	7,947,809	74.93	2,659,411	25.01	10,607,220
1976-77	8,526,341	78.25	2,370,360	21.75	10,896,701

NOTE: The data provided aggregated costs for both family allowances and old age programs. The information was disaggregated using the proportion of utilized man-years in one program compared with that for both programs. Labour costs include only salaries.

SOURCE: 'Family allowance and old age security operating expenditures and utilized man-years', Management Services Division, Income Security Programs Branch, Health and Welfare Canada. Unpublished data



TABLE A24: Family allowance, number of employees, Canada

Fiscal year	Utilized man-years
1971-2	725
1972-3	740
1973-4	723
1974-5	859
1975-6	816
1976-7	722

SOURCE: 'Family allowance and old age security operating expenditures and utilized man-years', Management Services Division, Income Security Programs Branch, Health and Welfare Canada. Unpublished data

TABLE A25: Family allowance, transfers paid, Canada (\$000)

Fiscal year	Total net payments
1960-1	507,500
1961-2	521,900
1962-3	532,800
1963-4	539,800
1964-5	584,300
1965-6	618,500
1966-7	625,500
1967-8	631,800
1968-9	637,000
1969-70	639,400
1970-1	641,100
1971-2	639,200
1972-3	633,500
1973-4	1,009,600
1974-5	1,798,700
1975-6	1,957,510
1976-7	1,979,770

NOTE: Includes family allowances, family assistance, and youth allowances.

SOURCE: *Social Security, National Programs*, Statistics Canada, catalogue 86-201, Annual  
Ottawa, National Health and Welfare, Income Security Branch, Operational Planning and Program Evaluation Division

TABLE A26:

## Family allowance, caseload data, Canada

Fiscal year	Number of children receiving benefits	Number of families receiving benefits
1960-1	6,397,134	2,602,930
1961-2	6,562,287	2,649,317
1962-3	6,669,374	2,685,710
1963-4	6,757,251	2,722,239
1964-5	7,380,824	3,128,663
1965-6	7,450,939	3,178,128
1966-7	7,504,411	3,239,345
1967-8	7,554,779	3,312,878
1968-9	7,559,733	3,378,658
1969-70	7,564,115	3,433,966
1970-1	7,554,439	3,500,894
1971-2	7,522,710	3,543,905
1972-3	7,488,433	3,587,262
1973-4	7,248,566	3,343,642
1974-5	7,344,482	3,445,848
1975-6	7,311,884	3,509,746
1976-7	7,243,525	3,561,457

NOTE: Includes family allowances, family assistance, and youth allowances, recipients as of March in each fiscal year. A new family allowance program came into effect in January 1974.

SOURCE: *Social Security, National programs*, Statistics Canada, catalogue 86-201, Annual

Ottawa, National Health and Welfare, Income Security Branch, Operational Planning and Program Evaluation Division

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